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SALUS POPULI SUPREMA LEX ESTO

*"The welfare of the people shall be the supreme law."*


JOHN R. ASHCROFT

SECRETARY OF STATE

# MISSOURI REGISTER

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Documents will be accepted for filing on all regular workdays from 8:00 a.m. until 5:00 p.m. We encourage early filings to facilitate the timely publication of the *Missouri Register*. Orders of Rulemaking appearing in the *Missouri Register* will be published in the *Code of State Regulations* and become effective as listed in the chart above. Advance notice of large volume filings will facilitate their timely publication. We reserve the right to change the schedule due to special circumstances. Please check the latest publication to verify that no changes have been made in this schedule. To review the entire year's schedule, please check out the website at www.sos.mo.gov/adrules/pubsched.

## HOW TO CITE RULES AND RSMO

### RULES

The rules are codified in the *Code of State Regulations* in this system–

| Title | | Division | Chapter | Rule |
|---|---|---|---|---|
| 3 | CSR | 10- | 4 | .115 |
| Department | *Code of State Regulations* | Agency Division | General area regulated | Specific area regulated |

and should be cited in this manner: 3 CSR 10-4.115.

Each department of state government is assigned a title. Each agency or division in the department is assigned a division number. The agency then groups its rules into general subject matter areas called chapters and specific areas called rules. Within a rule, the first breakdown is called a section and is designated as (1). Subsection is (A) with further breakdown into paragraphs 1., subparagraphs A., parts (I), subparts (a), items I. and subitems a.

The rule is properly cited by using the full citation, for example, 3 CSR 10-4.115 NOT Rule 10-4.115.

Citations of RSMo are to the *Missouri Revised Statutes* as of the date indicated.

## *Code* and *Register* on the Internet

The *Code of State Regulations* and *Missouri Register* are available on the Internet.

The *Code* address is www.sos.mo.gov/adrules/csr/csr

The *Register* address is www.sos.mo.gov/adrules/moreg/moreg

These websites contain rulemakings and regulations as they appear in the *Code* and *Registers*.

Rules appearing under this heading are filed under the authority granted by section 536.025, RSMo 2016. An emergency rule may be adopted by an agency if the agency finds that an immediate danger to the public health, safety, or welfare, or a compelling governmental interest requires emergency action; follows procedures best calculated to assure fairness to all interested persons and parties under the circumstances; follows procedures which comply with the protections extended by the *Missouri* and the *United States Constitutions*; limits the scope of such rule to the circumstances creating an emergency and requiring emergency procedure, and at the time of or prior to the adoption of such rule files with the secretary of state the text of the rule together with the specific facts, reasons, and findings which support its conclusion that there is an immediate danger to the public health, safety, or welfare which can be met only through the adoption of such rule and its reasons for concluding that the procedure employed is fair to all interested persons and parties under the circumstances.

Rules filed as emergency rules may be effective not less than ten (10) days after filing or at such later date as may be specified in the rule and may be terminated at any time by the state agency by filing an order with the secretary of state fixing the date of such termination, which order shall be published by the secretary of state in the *Missouri Register* as soon as practicable.

All emergency rules must state the period during which they are in effect, and in no case can they be in effect more than one hundred eighty (180) calendar days or thirty (30) legislative days, whichever period is longer. Emergency rules are not renewable, although an agency may at any time adopt an identical rule under the normal rulemaking procedures.

## Title 4—DEPARTMENT OF ECONOMIC DEVELOPMENT
## Division 240—Public Service Commission
## Chapter 40—Gas Utilities and Gas Safety Standards

## EMERGENCY RULE

### 4 CSR 240-40.033 Safety Standards–Liquefied Natural Gas Facilities

*PURPOSE: This rule prescribes safety standards for liquefied natural gas facilities used in the transportation of gas by pipeline that is subject to the pipeline safety standards in 4 CSR 240-40.030. This rule adopts the federal regulations on this subject matter that apply to operators of liquefied natural gas facilities used in the transportation of gas by pipeline that is subject to the federal pipeline safety laws and pipeline safety standards.*

*EMERGENCY STATEMENT: This emergency rule is necessary because the first liquefied natural gas facility that will be used in the transportation of gas by pipeline was established in Missouri in November 2018. The Missouri Public Service Commission is the state agency designated to protect the public health, safety, and welfare of the citizens of Missouri as those protections relate to intrastate natural gas pipelines. The emergency rule adopts the federal pipeline safety laws and standards to place the liquefied natural gas facility under the safety jurisdiction of the commission. The Public Service Commission finds that a compelling governmental interest requires this emergency action since, absent adoption of federal pipeline safety laws and standards, the commission lacks the authority to enforce liquefied natural gas safety regulations. A proposed rule, which covers the same material, is published in this issue of the* ***Missouri Register****. The scope of this emergency rule is limited to the circumstances creating the emergency and complies with the protections extended in the* ***Missouri*** *and* ***United States Constitutions****. The emergency rule is fair to all interested stakeholders and parties under the circumstances. This emergency rule was filed December 19, 2018, becomes effective December 29, 2018, and expires June 26, 2019.*

(1) As set forth in the *Code of Federal Regulations* (CFR) dated October 1, 2017, 49 CFR part 193 is incorporated by reference and made a part of this rule. This rule does not incorporate any subsequent amendments to 49 CFR part 193. The *Code of Federal Regulations* is published by the Office of the Federal Register, National Archives and Records Administration, 8601 Adelphi Road, College Park, MD 20740-6001. The October 1, 2017 version of 49 CFR part 193 is available at www.gpo.gov/fdsys/search/showcitation.action.

(2) The commission adopts the federal pipeline safety regulations for liquefied natural gas facilities, 49 CFR part 193, as rules of the commission.

(3) For purposes of this rule, the following substitutions should be made for certain references in the federal pipeline safety regulations adopted by reference in section (2) of this rule:

(A) The references to "state agency" in sections 193.2017, 193.2019, and 193.2515 of 49 CFR part 193 should refer to "the commission" instead;

(B) The reference to "state procedures" in section 193.2017 should refer to "commission procedures" instead.

(C) The reference in 49 CFR 193.2011 to "Part 191 of this subchapter" for reporting of incidents, safety-related conditions, and annual pipeline summary data for LNG plants or facilities should refer to 4 CSR 240-40.020 instead.

(D) The reference in 49 CFR 193.2605 to "Part 191.23 of this subchapter" for reporting requirements for safety related conditions should refer to 4 CSR 240-40.020(12) instead.

(E) The reference in 49 CFR 193.2001 to "Part 192 of this chapter" for applicability of the standards should refer to 4 CSR 240-40.030 instead.

(F) The reference in 49 CFR 193.2629 to "section 192.461 of this chapter" for protective coatings should refer to 4 CSR 240-40.030(9)(G) instead.

(G) The references in 49 CFR 193.2629 and 193.2635 to "section 192.463 of this chapter" for cathodic protection should refer to 4 CSR 240-40.030(9)(H) instead.

(4) The federal pipeline safety regulations for liquefied natural gas (49 CFR part 193) adopted in section (2) of this rule contain subparts on general, siting requirements, design, construction, equipment, operations, maintenance, personnel qualifications and training, fire protection, and security.

(A) The general subpart contains sections on: scope, applicability, definitions, Department of Transportation (DOT) rules of regulatory construction reporting, documents incorporated by reference, plans and procedures, and mobile and temporary liquefied natural gas facilities.

(B) The siting requirements subpart contains sections on: scope, thermal radiation protection, flammable vapor-gas dispersion protection and wind forces.

(C) The design subpart contains sections on: scope, material records, structural requirements for impoundment systems, dikes, covered systems, water removal and impoundment capacity, and

requirements pertaining to nonmetallic membrane liners in storage tanks.

(D) The construction subpart contains sections on: scope, construction acceptance, corrosion control, and nondestructive tests for welds.

(E) The equipment subpart contains sections on: scope, control center, and sources of power.

(F) The operations subpart contains sections on: scope, operating procedures, cooldown, monitoring operations, emergency procedures, personnel safety, transfer procedures, investigations of failures, purging, communication systems, and operating records.

(G) The maintenance subpart contains sections on: scope, general, maintenance procedures, foreign material, support systems, fire protection, auxiliary power sources, isolating and purging, repairs, control systems, testing transfer hoses, inspecting storage tanks, corrosion protection, atmospheric corrosion control, external corrosion control, internal corrosion control, interference currents, monitoring corrosion control, remedial measures, and maintenance records.

(H) The personnel qualifications and training subpart contains sections on: scope, design and fabrication, construction, installation, inspection and testing, operations and maintenance, security, personnel health, operations and maintenance training, security training, fire protection training, and records training.

(I) The fire protection subpart contains a section on fire protection.

(J) The security subpart contains sections on: scope, security procedures, protective enclosures, protective enclosure construction, security communications, security lighting, security monitoring, alternative power sources, and warning signs.

*AUTHORITY: sections 386.250, 386.310 and 393.140, RSMo 2016. Emergency rule filed Dec. 19, 2018, effective Dec. 29, 2018, expires June 26, 2019. A proposed rule covering this same material is published in this issue of the* ***Missouri Register****.*

## Title 13—DEPARTMENT OF SOCIAL SERVICES
## Division 70—MO HealthNet Division
## Chapter 10—Nursing Home Program

### EMERGENCY AMENDMENT

**13 CSR 70-10.016 Global Per Diem Adjustments to Nursing Facility and HIV Nursing Facility Reimbursement Rates**. The division is adding paragraph (3)(A)22.

*PURPOSE: This emergency amendment provides for a per diem increase to nursing facility and HIV nursing facility per diem reimbursement rates of seven dollars and seventy-six cents ($7.76) effective for dates of service beginning July 1, 2018. This per diem increase was approved by the Centers for Medicare and Medicaid Services (CMS) on December 10, 2018.*

*EMERGENCY STATEMENT: The Department of Social Services, MO HealthNet Division (MHD), determines that this emergency amendment is necessary to preserve a compelling governmental interest.*

*MHD, by rule and regulation, must define the reasonable costs, manner, extent, quantity, quality, charges, and fees of medical assistance. Sections 208.153, 208.159, 208.201, and 660.017, RSMo. Effective for dates of service beginning July 1, 2018, the appropriation by the General Assembly included additional funds to nursing facilities' and HIV nursing facilities' reimbursements to account for a trend adjustment for State Fiscal Year (SFY) 2019. MHD is carrying out the General Assembly's intent by providing for a per diem increase to nursing facility and HIV nursing facility reimbursement rates by implementing a trend adjustment of seven dollars and seventy-six cents ($7.76) effective for dates of service that began on July 1, 2018. The trend adjustment is necessary to ensure that payments for nursing facility and HIV nursing facility per diem rates are in line with the funds appropriated for that purpose. There is a total of five hundred seven (507) nursing facilities and HIV nursing facilities currently enrolled in MO HealthNet that will receive a per diem increase to its reimbursement rate effective for dates of service beginning July 1, 2018. This emergency amendment will ensure increased payment for nursing facility and HIV nursing facility services to approximately twenty-four thousand two hundred thirty (24,230) senior Missourians in accordance with the appropriation authority.*

*In order for the SFY 2019 payment to be made, the Centers for Medicare and Medicaid Services (CMS) required MHD to submit a Medicaid State Plan Amendment for approval. MHD submitted the State Plan Amendment after the budget bill went into effect, on September 24, 2018. A proposed amendment was filed on September 28, 2018, and will not be effective until approximately March 30, 2019. CMS approved the State Plan Amendment on December 10, 2018.*

*MHD needs this emergency amendment to provide MHD participants with quality nursing facility services in order to protect the public health, safety, and/or welfare of MO HealthNet participants in nursing facilities and HIV nursing facilities. MHD also needs this emergency amendment to protect the governmental interest to reimburse nursing facilities and HIV nursing facilities in accordance with the budget duly passed by the General Assembly and to provide continued cash flow for nursing facility and HIV nursing facility services to ensure continuity of services to the MHD participants who must have these services.*

*The scope of this emergency amendment is limited to the circumstances creating the emergency and complies with the protections extended in the* ***Missouri*** *and* ***United States Constitutions****. MHD believes this emergency amendment is fair to all interested persons and parties under the circumstances. A proposed amendment covering this same material was published in the* ***Missouri Register*** *on November 1, 2018 (43 MoReg 3094-3098). This emergency amendment was filed December 21, 2018, becomes effective December 31, 2018, and expires June 28, 2019.*

(3) Adjustments to the Reimbursement Rates. Subject to the limitations prescribed in 13 CSR 70-10.015, a nursing facility's reimbursement rate may be adjusted as described in this section. Subject to the limitations prescribed in 13 CSR 70-10.080, an HIV nursing facility's reimbursement rate may be adjusted as described in this section.

(A) Global Per Diem Rate Adjustments. A facility with either an interim rate or a prospective rate may qualify for the global per diem rate adjustments. Global per diem rate adjustments shall be added to the specified cost component ceiling.

1. FY-96 negotiated trend factor—

A. Facilities with either an interim rate or prospective rate in effect on October 1, 1995, shall be granted an increase to their per diem effective October 1, 1995, of four and six-tenths percent (4.6%) of the cost determined in paragraphs (11)(A)1., (11)(B)1., (11)(C)1., and the property insurance and property taxes detailed in subsection (11)(D) of 13 CSR 70-10.015; or

B. Facilities that were granted a prospective rate based on paragraph (12)(A)2. of 13 CSR 70-10.015 that is in effect on October 1, 1995, shall have their increase determined by subsection (3)(S) of 13 CSR 70-10.015.

2. FY-97 negotiated trend factor—

A. Facilities with either an interim rate or prospective rate in effect on October 1, 1996, shall be granted an increase to their per diem effective October 1, 1996, of three and seven-tenths percent (3.7%) of the cost determined in paragraphs (11)(A)1., (11)(B)1., (11)(C)1., and the property insurance and property taxes detailed in subsection (11)(D) of 13 CSR 70-10.015; or

B. Facilities that were granted a prospective rate based on paragraph (12)(A)2. of 13 CSR 70-10.015 that is in effect on October 1, 1995, shall have their increase determined by subsection (3)(S) of

13 CSR 70-10.015.

3. Nursing Facility Reimbursement Allowance (NFRA). Effective October 1, 1996, all facilities with either an interim rate or a prospective rate shall have its per diem adjusted to include the current NFRA as an allowable cost in its reimbursement rate calculation.

4. Minimum wage adjustment. All facilities with either an interim rate or a prospective rate in effect on November 1, 1996, shall be granted an increase to their per diem effective November 1, 1996, of two dollars and forty-five cents ($2.45) to allow for the change in minimum wage. Utilizing Fiscal Year 1995 cost report data, the total industry hours reported for each payroll category was multiplied by the fifty-cent (50¢) increase, divided by the patient days for the facilities reporting hours for that payroll category, and factored up by eight and sixty-seven hundredths percent (8.67%) to account for the related increase to payroll taxes. This calculation excludes the director of nursing, the administrator, and assistant administrator.

5. Minimum wage adjustment. All facilities with either an interim rate or a prospective rate in effect on September 1, 1997, shall be granted an increase to their per diem effective September 1, 1997, of one dollar and ninety-eight cents ($1.98) to allow for the change in minimum wage. Utilizing Fiscal Year 1995 cost report data, the total industry hours reported for each payroll category was multiplied by the forty-cent (40¢) increase, divided by the patient days for the facilities reporting hours for that payroll category, and factored up by eight and sixty-seven hundredths percent (8.67%) to account for the related increase to payroll taxes. This calculation excludes the director of nursing, the administrator, and assistant administrator.

6. FY-98 negotiated trend factor—

A. Facilities with either an interim rate or prospective rate in effect on October 1, 1997, shall be granted an increase to their per diem effective October 1, 1997, of three and four-tenths percent (3.4%) of the cost determined in paragraphs (11)(A)1., (11)(B)1., (11)(C)1., and the property insurance and property taxes detailed in subsection (11)(D) of 13 CSR 70-10.015 for nursing facilities and 13 CSR 70-10.080 for HIV nursing facilities; or

B. Facilities that were granted a prospective rate based on paragraph (12)(A)2. of 13 CSR 70-10.015 that is in effect on October 1, 1995, shall have their increase determined by subsection (3)(S) of 13 CSR 70-10.015.

7. FY-99 negotiated trend factor—

A. Facilities with either an interim rate or prospective rate in effect on October 1, 1998, shall be granted an increase to their per diem effective October 1, 1998, of two and one-tenth percent (2.1%) of the cost determined in paragraphs (11)(A)1., (11)(B)1., (11)(C)1., the property insurance and property taxes detailed in subsection (11)(D) of 13 CSR 70-10.015 for nursing facilities and 13 CSR 70-10.080 for HIV nursing facilities, and the minimum wage adjustments detailed in paragraphs (3)(A)4. and (3)(A)5. of this regulation; or

B. Facilities that were granted a prospective rate based on paragraph (12)(A)2. of 13 CSR 70-10.015 that is in effect on October 1, 1998, shall have their increase determined by subsection (3)(S) of 13 CSR 70-10.015.

8. FY-2000 negotiated trend factor—

A. Facilities with either an interim rate or prospective rate in effect on July 1, 1999, shall be granted an increase to their per diem effective July 1, 1999, of one and ninety-four hundredths percent (1.94%) of the cost determined in subsections (11)(A), (11)(B), (11)(C), the property insurance and property taxes detailed in subsection (11)(D) of 13 CSR 70-10.015 for nursing facilities and 13 CSR 70-10.080 for HIV nursing facilities, and the minimum wage adjustments detailed in paragraphs (3)(A)4. and (3)(A)5. of this regulation; or

B. Facilities that were granted a prospective rate based on paragraph (12)(A)2. of 13 CSR 70-10.015 that is in effect on July 1, 1999, shall have their increase determined by subsection (3)(S) of 13 CSR 70-10.015.

9. FY-2004 nursing facility operations adjustment—

A. Facilities with either an interim rate or prospective rate in effect on July 1, 2003, shall be granted an increase to their per diem effective for dates of service beginning July 1, 2003, through June 30, 2004, of four dollars and thirty-two cents ($4.32) for the cost of nursing facility operations. Effective for dates of service beginning July 1, 2004, the per diem adjustment shall be reduced to three dollars and seventy-eight cents ($3.78); and

B. The operations adjustment shall be added to the facility's current rate as of June 30, 2003, and is effective for payment dates after August 1, 2003.

10. FY-2007 quality improvement adjustment—

A. Facilities with either an interim rate or prospective rate in effect on July 1, 2006, shall be granted an increase to their per diem effective for dates of service beginning July 1, 2006, of three dollars and seventeen cents ($3.17) to improve the quality of life for nursing facility residents; and

B. The quality improvement adjustment shall be added to the facility's current rate as of June 30, 2006, and is effective for dates of service beginning July 1, 2006, and after.

11. FY-2007 trend adjustment—

A. Facilities with either an interim rate or a prospective rate in effect on February 1, 2007, shall be granted an increase to their per diem rate effective for dates of service beginning February 1, 2007, of three dollars and zero cents ($3.00) to allow for a trend adjustment to ensure quality nursing facility services; and

B. The trend adjustment shall be added to the facility's reimbursement rate as of January 31, 2007, and is effective for dates of service beginning February 1, 2007, for payment dates after March 1, 2007.

12. FY-2008 trend adjustment—

A. Facilities with either an interim rate or a prospective rate in effect on July 1, 2007, shall be granted an increase to their per diem rate effective for dates of service beginning July 1, 2007, of six dollars and zero cents ($6.00) to allow for a trend adjustment to ensure quality nursing facility services; and

B. The trend adjustment shall be added to the facility's current rate as of June 30, 2007, and is effective for dates of service beginning July 1, 2007.

13. FY-2009 trend adjustment—

A. Facilities with either an interim rate or a prospective rate in effect on July 1, 2008, shall be granted an increase to their per diem rate effective for dates of service beginning July 1, 2008, of six dollars and zero cents ($6.00) to allow for a trend adjustment to ensure quality nursing facility services; and

B. The trend adjustment shall be added to the facility's current rate as of June 30, 2008, and is effective for dates of service beginning July 1, 2008.

14. FY-2010 trend adjustment—

A. Facilities with either an interim rate or a prospective rate in effect on July 1, 2009, shall be granted an increase to their per diem rate effective for dates of service beginning July 1, 2009, of five dollars and fifty cents ($5.50) to allow for a trend adjustment to ensure quality nursing facility services; and

B. The trend adjustment shall be added to the facility's current rate as of June 30, 2009, and is effective for dates of service beginning July 1, 2009.

15. FY-2012 trend adjustment—

A. Facilities with either an interim rate or a prospective rate in effect on October 1, 2011, shall be granted an increase to their per diem rate effective for dates of service beginning October 1, 2011, of six dollars and zero cents ($6.00) to allow for a trend adjustment to ensure quality nursing facility services;

B. The trend adjustment shall be added to the facility's current rate as of September 30, 2011, and is effective for dates of service beginning October 1, 2011; and

C. This increase is contingent upon the federal assessment rate limit increasing to six percent (6%) and is subject to approval by the Centers for Medicare and Medicaid Services.

16. FY-2013 trend adjustment—

A. Facilities with either an interim rate or a prospective rate in effect on July 1, 2012, shall be granted an increase to their per diem rate effective for dates of services beginning July 1, 2012, of six dollars and zero cents ($6.00) to allow for a trend adjustment to ensure quality nursing facility services;

B. The trend adjustment shall be added to the facility's current rate as of June 30, 2012, and is effective for dates of service beginning July 1, 2012; and

C. This increase is contingent upon approval by the Centers for Medicare and Medicaid Services.

17. FY-2014 trend adjustment—

A. Facilities with either an interim rate or a prospective rate in effect on July 1, 2013, shall be granted an increase to their per diem rate effective for dates of services beginning July 1, 2013, of three percent (3.0%) of their current rate, less certain fixed cost items. The fixed cost items are the per diem amounts included in the facility's current rate from the following: subsection (2)(O) of 13 CSR 70-10.110, paragraphs (11)(D)1., (11)(D)2., (11)(D)3., (11)(D)4., (13)(B)3., and (13)(B)10. of 13 CSR 70-10.015;

B. The trend adjustment shall be added to the facility's current rate as of June 30, 2013, and is effective for dates of service beginning July 1, 2013; and

C. This increase is contingent upon approval by the Centers for Medicare and Medicaid Services.

18. FY-2015 trend adjustment—

A. Facilities with either an interim rate or a prospective rate in effect on July 1, 2014, shall be granted an increase to their per diem rate effective for dates of services beginning July 1, 2014, of one dollar and twenty-five cents ($1.25) to allow for a trend adjustment to ensure quality nursing facility services;

B. The trend adjustment shall be added to the facility's current rate as of June 30, 2014, and is effective for dates of service beginning July 1, 2014; and

C. This increase is contingent upon approval by the Centers for Medicare and Medicaid Services.

19. January 1, 2016 – June 30, 2016 trend adjustment—

A. Facilities with either an interim rate or a prospective rate in effect on January 1, 2016, shall be granted an increase to their per diem rate effective for dates of services beginning January 1, 2016, of two dollars and nine cents ($2.09) to allow for a trend adjustment to ensure quality nursing facility services;

B. The trend adjustment will not be added to the facility's rate after June 30, 2016; and

C. This increase is contingent upon approval by the Centers for Medicare and Medicaid Services and sufficient funding available through the Tax Amnesty Fund.

20. Continuation of FY-2016 trend adjustment and FY-2017 trend adjustment—

A. Facilities with either an interim rate or a prospective rate in effect on July 1, 2016, shall continue to be granted an increase to their per diem rate effective for dates of service beginning July 1, 2016, of two dollars and nine cents ($2.09);

B. Facilities with either an interim rate or a prospective rate in effect on July 1, 2016, shall be granted an increase to their per diem rate effective for dates of services beginning July 1, 2016, of two dollars and eighty-three cents ($2.83) to allow for a trend adjustment to ensure quality nursing facility services;

C. The trend adjustment of two dollars and eighty-three cents ($2.83) shall be added to the facility's rate as of June 30, 2016, which includes the two dollars and nine cents ($2.09) increase, and is effective for dates of service beginning July 1, 2016; and

D. These increases are contingent upon approval by the Centers for Medicare and Medicaid Services.

21. FY-2018 per diem adjustment—

A. Facilities with either an interim rate or a prospective rate in effect on August 1, 2017, shall be subject to a decrease in their per diem rate effective for dates of services August 1, 2017 through June 30, 2018, of five dollars and thirty-seven cents ($5.37);

B. The per diem adjustment of five dollars and thirty-seven cents ($5.37) shall be deducted from the facility's current rate as of July 31, 2017, and is effective for dates of service beginning August 1, 2017;

C. Effective for dates of service beginning July 1, 2018, the per diem decrease shall be reduced to four dollars and eighty-three cents ($4.83). A per diem adjustment of fifty-four cents ($0.54) shall be added to the facilities current rate as of June 30, 2018, which includes the five dollars and thirty-seven cents ($5.37) decrease, and is effective for dates of service beginning July 1, 2018; and

D. This decrease is contingent upon approval by the Centers for Medicare and Medicaid Services.

**22. FY-2019 trend adjustment—**

**A. Facilities with either an interim rate or a prospective rate in effect on July 1, 2018, shall be granted an increase to their per diem rate effective for dates of services beginning July 1, 2018, of seven dollars and seventy-six cents ($7.76) to allow for a trend adjustment to ensure quality nursing facility services;**

**B. The rate to which the FY-2019 trend adjustment of seven dollars and seventy-six cents ($7.76) shall be added is the facilities' rate as of July 1, 2018, set forth in subparagraph (3)(A)21.C. and is effective for dates of service beginning July 1, 2018. This trend adjustment shall result in a rate no greater than eight dollars and thirty cents ($8.30) higher than the rate in effect on January 1, 2018; and**

**C. This increase is contingent upon approval by the Centers for Medicare and Medicaid Services.**

*AUTHORITY: sections 208.153, 208.159, 208.201, and 660.017, RSMo 2016. Original rule filed July 1, 2008, effective Jan. 30, 2009. For intervening history, please consult the* ***Code of State Regulations****. Amended: Filed Sept. 28, 2018. Emergency amendment filed Dec. 21, 2018, effective Dec. 31, 2018, expires June 28, 2019. A proposed amendment covering this same material was published in the November 1, 2018, issue of the* ***Missouri Register****.*

## Title 19—DEPARTMENT OF HEALTH AND SENIOR SERVICES
## Division 20—Division of Community and Public Health
## Chapter 60—Maternal and Neonatal Care

### EMERGENCY RULE

### 19 CSR 20-60.010 Levels of Maternal and Neonatal Care Designations

*PURPOSE: This rule establishes criteria and procedures for reporting standardized assessments and levels of maternal and neonatal care designations for birthing facilities.*

*PUBLISHER'S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproductions. This note applies only to the reference material. The entire text of the rule is printed here.*

*EMERGENCY STATEMENT: During the 2017 legislative session, section 192.380, RSMo, was enacted. Section 192.380, RSMo, requires hospitals with birthing facilities to report to the department levels of maternal care and neonatal care designations beginning January 1, 2019. Section 192.380, RSMo, implemented one (1) of seven (7) recommendations which emerged from a governor appointed task force on prematurity and infant mortality. This rule establishes the criteria*

*and procedures that the hospitals will utilize to report maternal and neonatal care designations. This rule also provides the hospitals with the tool to use in order to conduct the assessments. he hospitals will be unable to determine levels of maternal and neonatal care designations pursuant to section 192.380, RSMo, and report to the department beginning January 1, 2019, without this rule. The determinations by the hospitals of levels of maternal and neonatal care designations will be utilized to improve health outcomes for pregnant women and infants. Knowing the levels of maternal and neonatal care designations will assist in developing coordinated regional systems to ensure that pregnant women and infants who are at high risk for complications receive care at a hospital that is best prepared to meet their needs. The goal is to reduce infant morbidity and mortality and improve birth outcomes. Missouri's infant mortality rate (6.3 in 2017) has been consistently above the Healthy People 2020 goal of 6.0. Further, the standardized assessments will provide a better picture of the levels of care by hospitals and the distribution of staff and services throughout Missouri. As a result, the department finds an immediate danger to the public health, safety, and/or welfare and a compelling governmental interest, which requires this emergency action. A proposed rule, which covers the same material, is published in this issue of the* ***Missouri Register****. The scope of this emergency rule is limited to the circumstances creating the emergency and complies with the protections extended in the* ***Missouri*** *and* ***United States Constitutions****. The department believes this emergency rule is fair to all interested persons and parties under the circumstances. This emergency rule was filed December 20, 2018, becomes effective December 30, 2018, and expires June 27, 2019.*

(1) The following definitions shall apply throughout this rule:

(A) "Birthing facility" means any hospital, as defined under section 197.020 RSMo, with more than one licensed obstetric bed or a neonatal intensive care unit, a hospital operated by a state university, or a birthing center licensed under sections 197.200 to 197.240, RSMo;

(B) "Department" means the Missouri Department of Health and Senior Services; and

(C) "LOCATe" or "CDC Maternal and Neonatal Levels of Care Assessment Tool" refers to a web-based tool created by the Centers for Disease Control and Prevention (CDC) that assists in creating standardized assessments of levels of maternal and neonatal care. LOCATe is based on the most recent guidelines and policy statements issued by the American Academy of Pediatrics, the American College of Obstetricians and Gynecologists, and the Society for Maternal-Fetal Medicine.

(2) By January 31, 2019, each birthing facility shall complete the CDC Maternal and Neonatal Levels of Care Assessment Tool (LOCATe) based upon the assessment of the facility as of December 31, 2018. For each succeeding year thereafter, each birthing facility shall use LOCATe to reassess its designation as of December 31st preceding the due date of January 31. The LOCATe tool (version 0.8.0) is incorporated by reference in this rule as published by the Centers for Disease Control and Prevention and available at www.health.mo.gov. This rule does not incorporate any subsequent amendments or additions. The completed assessment shall be sent to the Department of Health and Senior Services, PO Box 570, Jefferson City, MO 65102-0570 by January 31 each year.

(3) The level of care designation for neonatal care selected by the birthing facility within LOCATe shall be based upon the most current standards published by the American Academy of Pediatrics (AAP). The level of care designation for maternal care selected by the birthing facility within LOCATe shall be based upon the most current standards published by the American College of Obstetricians and Gynecologists (ACOG) and the Society for Maternal-Fetal Medicine.

(4) Each birthing facility shall have the results of their LOCATe assessment and level of care designations verified by the department, AAP, or ACOG once every three years. When submitting the annual LOCATe assessment, birthing facilities shall notify the department in writing about how they will have their results verified.

(5) If a birthing facility chooses to have the results of their LOCATe standardized assessment and level of care designations verified by either AAP or ACOG, the verification shall be conducted utilizing criteria collected in LOCATe. Verification processes conducted by AAP or ACOG may include criteria in addition to those included in LOCATe. Verification by the department will only include criteria collected in LOCATe.

(6) A birthing facility shall provide written notification to the department at any time their designation changes in between annual assessments.

(7) The department may initiate a review and monitor compliance with the provisions set forth in this rule at any time. The department will provide written notification to a birthing facility if it finds that verification does not match the self-designated levels of care.

*AUTHORITY: section 192.006, RSMo 2016 and section 192.380, RSMo Supp. 2017. Emergency rule filed Dec. 20, 2018, effective Dec. 30, 2018, expires June 27, 2019. A proposed rule covering this same material is published in this issue of the* ***Missouri Register****.*

The Secretary of State shall publish all executive orders beginning January 1, 2003, pursuant to section 536.035.2, RSMo 2016.

**EXECUTIVE ORDER**
**18-12**

WHEREAS, the United States Constitution mandates that the nation undertake a census of population every ten years; and

WHEREAS, the Census requires years of planning and requires more than 500,000 temporary workers; and

WHEREAS, it is vitally important that every household completes a Census form; and

WHEREAS, the Census is used to apportion seats in the United States House of Representatives; and

WHEREAS, one percent of Missouri's population equates to one billion dollars of federal funding per decade; and

WHEREAS, the State of Missouri faces the possible loss of a seat in the United States House of Representatives and loss of federal funding based on Missouri's population counts relative to those of all other states; and

WHEREAS, federal funds are vital to Missourians and distributed based on population counts collected during the Census; and

WHEREAS, the United States Census Bureau encourages all states to form a Complete Count Committee with the goals of heightening awareness about the 2020 Census and encouraging the populace to participate in the United States Census of Population; and

WHEREAS, the State of Missouri is committed to ensuring Missouri has an accurate count of its citizens during the 2020 Census.

NOW, THEREFORE, I MICHAEL L. PARSON, GOVERNOR OF THE STATE OF MISSOURI, by virtue of the authority vested in me by the Constitution and laws of the state of Missouri, do hereby order the establishment of the Missouri 2020 Complete Count Committee.

I hereby charge the Committee with heightening Missouri's awareness of the 2020 Census, encouraging participation in the process, developing targeted community outreach, and working to ensure that every resident is counted:

1. The Governor shall designate a chairperson of the committee.
2. No more than 30 additional members will be appointed by the Governor. Additional appointments will represent Missouri's diverse population. Membership on the committee will be bipartisan and representative of the State. The State Demographer will be one of the members.
3. The Committee shall begin work on an action plan soon after its formation that will identify specific areas or groups within Missouri, which are isolated geographically, linguistically, racially, culturally, or otherwise, that may be hard to enumerate. The plan also should identify strategies to overcome recognized barriers; develop campaigns targeted toward the identified areas or groups, which will build awareness of Census 2020, and encourage cooperation with enumerators.
4. The chair, in consultation with the Governor, will decide if the committee will have subcommittees. The purpose of such subcommittees will be to help the committee better achieve its mission on a particular geographic region or group of citizens within the State of Missouri.
5. The Chair, in consultation with the committee, shall establish a set of by-laws and rules that govern the committee.
6. The Committee members shall not be compensated for their services other than reimbursement of costs directly associated with the execution of their duties, subject to appropriations.
7. The Committee is authorized to submit requests for appropriations through the Commissioner of Administration necessary to carry out its charge.
8. The Committee should fulfill this charge in the most cost-effective manner possible.
9. Staff support will be provided by the Office of Administration.
10. The Committee shall meet at least once quarterly until December 15, 2019, and as often as is required thereafter to complete this charge.
11. The Committee shall provide quarterly reports to the Governor on its activities beginning in 2019.

12. Whenever possible, the Committee should coordinate its efforts with those of the United States Bureau of Census and Complete Count Committees established at the local or sub-state level.
13. The Committee shall submit a final report to the Governor summarizing its activities and suggesting improvements to Missouri's Complete Count Committee for Census 2030.
14. The Committee will complete its work and submit its final report by August 1, 2020.
15. Executive Order 09-05 is hereby superseded and replaced by this Executive Order.

IN WITNESS WHEREOF, I have hereto set my hand and caused to be affixed the Great Seal of the State of Missouri, in the City of Jefferson on this 18th day of December, 2018.

Michael L. Parson
Governor

John R. Ashcroft
Secretary of State

Under this heading will appear the text of proposed rules and changes. The notice of proposed rulemaking is required to contain an explanation of any new rule or any change in an existing rule and the reasons therefor. This is set out in the Purpose section with each rule. Also required is a citation to the legal authority to make rules. This appears following the text of the rule, after the word "Authority."

Entirely new rules are printed without any special symbology under the heading of proposed rule. If an existing rule is to be amended or rescinded, it will have a heading of proposed amendment or proposed rescission. Rules which are proposed to be amended will have new matter printed in boldface type and matter to be deleted placed in brackets.

An important function of the *Missouri Register* is to solicit and encourage public participation in the rulemaking process. The law provides that for every proposed rule, amendment, or rescission there must be a notice that anyone may comment on the proposed action. This comment may take different forms.

If an agency is required by statute to hold a public hearing before making any new rules, then a Notice of Public Hearing will appear following the text of the rule. Hearing dates must be at least thirty (30) days after publication of the notice in the *Missouri Register.* If no hearing is planned or required, the agency must give a Notice to Submit Comments. This allows anyone to file statements in support of or in opposition to the proposed action with the agency within a specified time, no less than thirty (30) days after publication of the notice in the *Missouri Register*.

An agency may hold a public hearing on a rule even though not required by law to hold one. If an agency allows comments to be received following the hearing date, the close of comments date will be used as the beginning day in the ninety- (90-) day-count necessary for the filing of the order of rulemaking.

If an agency decides to hold a public hearing after planning not to, it must withdraw the earlier notice and file a new notice of proposed rulemaking and schedule a hearing for a date not less than thirty (30) days from the date of publication of the new notice.

Proposed Amendment Text Reminder:
**Boldface text indicates new matter**.
*[Bracketed text indicates matter being deleted.]*

## Title 4—DEPARTMENT OF ECONOMIC DEVELOPMENT
## Division 240—Public Service Commission
## Chapter 40—Gas Utilities and Gas Safety Standards

### PROPOSED RULE

**4 CSR 240-40.033 Safety Standards–Liquefied Natural Gas Facilities**

*PURPOSE: This rule prescribes safety standards for liquefied natural gas facilities used in the transportation of gas by pipeline that is subject to the pipeline safety standards in 4 CSR 240-40.030. This rule adopts the federal regulations on this subject matter that apply to operators of liquefied natural gas facilities used in the transportation of gas by pipeline that is subject to the federal pipeline safety laws and pipeline safety standards.*

(1) As set forth in the *Code of Federal Regulations* (CFR) dated October 1, 2017, 49 CFR part 193 is incorporated by reference and made a part of this rule. This rule does not incorporate any subsequent amendments to 49 CFR part 193. The *Code of Federal Regulations* is published by the Office of the Federal Register, National Archives and Records Administration, 8601 Adelphi Road, College Park, MD 20740-6001. The October 1, 2017 version of 49 CFR part 193 is available at www.gpo.gov/fdsys/search/showcitation.action.

(2) The commission adopts the federal pipeline safety regulations for liquefied natural gas facilities, 49 CFR part 193, as rules of the commission.

(3) For purposes of this rule, the following substitutions should be made for certain references in the federal pipeline safety regulations adopted by reference in section (2) of this rule:

(A) The references to "state agency" in sections 193.2017, 193.2019, and 193.2515 of 49 CFR part 193 should refer to "the commission" instead;

(B) The reference to "state procedures" in section 193.2017 should refer to "commission procedures" instead.

(C) The reference in 49 CFR 193.2011 to "Part 191 of this subchapter" for reporting of incidents, safety-related conditions, and annual pipeline summary data for LNG plants or facilities should refer to 4 CSR 240-40.020 instead.

(D) The reference in 49 CFR 193.2605 to "Part 191.23 of this subchapter" for reporting requirements for safety related conditions should refer to 4 CSR 240-40.020(12) instead.

(E) The reference in 49 CFR 193.2001 to "Part 192 of this chapter" for applicability of the standards should refer to 4 CSR 240-0.030 instead.

(F) The reference in 49 CFR 193.2629 to "section 192.461 of this chapter" for protective coatings should refer to 4 CSR 240-0.030(9)(G)" instead.

(G) The references in 49 CFR 193.2629 and 193.2635 to "section 192.463 of this chapter" for cathodic protection should refer to 4 CSR 240-40.030(9)(H) instead.

(4) The federal pipeline safety regulations for liquefied natural gas (49 CFR part 193) adopted in section (2) of this rule contain subparts on general, siting requirements, design, construction, equipment, operations, maintenance, personnel qualifications and training, fire protection, and security.

(A) The general subpart contains sections on: scope, applicability, definitions, Department of Transportation (DOT) rules of regulatory construction reporting, documents incorporated by reference, plans and procedures, and mobile and temporary liquefied natural gas facilities.

(B) The siting requirements subpart contains sections on: scope, thermal radiation protection, flammable vapor-gas dispersion protection and wind forces.

(C) The design subpart contains sections on: scope, material records, structural requirements for impoundment systems, dikes, covered systems, water removal and impoundment capacity, and requirements pertaining to nonmetallic membrane liners in storage tanks.

(D) The construction subpart contains sections on: scope, construction acceptance, corrosion control, and nondestructive tests for welds.

(E) The equipment subpart contains sections on: scope, control center, and sources of power.

(F) The operations subpart contains sections on: scope, operating procedures, cooldown, monitoring operations, emergency procedures, personnel safety, transfer procedures, investigations of failures, purging, communication systems, and operating records.

(G) The maintenance subpart contains sections on: scope, general, maintenance procedures, foreign material, support systems, fire protection, auxiliary power sources, isolating and purging, repairs, control systems, testing transfer hoses, inspecting storage tanks, corrosion protection, atmospheric corrosion control, external corrosion control, internal corrosion control, interference currents, monitoring corrosion control, remedial measures, and maintenance records.

(H) The personnel qualifications and training subpart contains sections on: scope, design and fabrication, construction, installation, inspection and testing, operations and maintenance, security, personnel health, operations and maintenance training, security training, fire protection training, and records training.

(I) The fire protection subpart contains a section on fire protection.

(J) The security subpart contains sections on: scope, security procedures, protective enclosures, protective enclosure construction, security communications, security lighting, security monitoring, alternative power sources, and warning signs.

*AUTHORITY: sections 386.250, 386.310 and 393.140, RSMo 2016. Emergency rule filed Dec. 19, 2018, effective Dec. 29, 2018, expires June 2, 2019. Emergency rule filed Dec. 19, 2018, effective Dec. 29, 2018, expires June 26, 2019. Original rule filed Dec. 20, 2018.*

*PUBLIC COST: This proposed rule will not cost state agencies or political subdivisions more than five hundred dollars ($500) in the aggregate.*

*PRIVATE COST: This proposed rule will not cost private entities more than five hundred dollars ($500) in the aggregate.*

*NOTICE TO SUBMIT COMMENTS AND NOTICE OF PUBLIC HEARING: Anyone may file comments in support of or in opposition to this proposed rule with the Missouri Public Service Commission, Morris L. Woodruff, Secretary of the Commission, PO Box 360, Jefferson City, MO 65102. To be considered, comments must be received at the commission's offices on or before March 4, 2019, and should include reference to Commission Case No. GX-2019-0177. Comments may also be submitted via a filing using the commission's electronic filing and information system at http://www.psc.mo.gov/efis.asp. A public hearing regarding this proposed rule is scheduled for March 5, 2019, at 2:00 p.m., in Room 305 of the Governor Office Building, 200 Madison St., Jefferson City, Missouri. Interested persons may appear at this hearing to submit additional comments and/or testimony in support of or in opposition to this proposed rule and may be asked to respond to commission questions.*

*SPECIAL NEEDS: Any persons with special needs as addressed by the Americans with Disabilities Act should contact the Missouri Public Service Commission at least ten (10) days prior to the hearing at one (1) of the following numbers: Consumer Services Hotline 1-800-392-4211 or TDD Hotline 1-800-829-7541.*

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 80—Solid Waste Management
## Chapter 2—General Provisions

### PROPOSED AMENDMENT

**10 CSR 80-2.010 Definitions**. The department is deleting sections (1) through (134) and adding new sections (1) and (2).

*PURPOSE: This rule is being amended to incorporate definitions found in 40 CFR 257 pursuant to requirements for a federally-approved state coal combustion residuals (CCR) program. This amended regulation will need to be submitted to the U.S. Environmental Protection Agency (EPA) upon the Missouri Department of Natural Resources' request for federal approval for a state-approved CCR Program.*

*[(1) Alkaline-manganese battery or alkaline battery means a battery having a manganese dioxide positive electrode, a zinc negative electrode, an alkaline electrolyte, including alkaline-manganese button cell batteries intended for use in watches, calculators, and other electronic products, and larger-sized alkaline-manganese batteries in general household use.*

*(2) Button cell battery or button cell means any small alkaline-manganese or mercuric-oxide battery having the size and shape of a button.*

*(3) Airport means a public-use airport open to the public without prior permission and without restrictions within the physical capacities of available facilities.*

*(4) Applicant means a person who applies for a solid waste permit from the department.*

*(5) Aquifer means a hydrostratigraphic unit capable of consistently yielding a sufficient amount of water to a monitoring well within twenty-four (24) hours of purging for sampling and analysis.*

*(6) Areas susceptible to mass movement means those areas of influence (for example, areas characterized as having an active or substantial possibility of mass movement) where the movement of earth material at, beneath or adjacent to the sanitary landfill, because of natural or man-induced events, results in the downslope transport of soil and rock material by means of gravitational influence. Areas of mass movement include, but are not limited to, landslides, avalanches, debris slides and flows, solifluction, block sliding and rock fall.*

*(7) Bedrock means the solid rock strata underlying solid and unconsolidated surface materials.*

*(8) Bird hazard means an increase in the likelihood of bird/aircraft collisions that may cause damage to the aircraft or injury to its occupants.*

*(9) Cell means compacted solid wastes that are enclosed on all sides by natural soil or cover in a solid waste disposal area.*

*(10) City means any incorporated city, town or village.*

*(11) Clean fill means uncontaminated soil, rock, sand, gravel, concrete, asphaltic concrete, cinderblocks, brick, minimal amounts of wood and metal, and inert solids as approved by rule or policy of the department for fill, reclamation or other beneficial use.*

*(12) Closure means the permanent cessation of active disposal operations, abandonment of the disposal area, revocation of the permit or filling with waste of all areas and volumes specified in the permit and preparing the area for long-term care.*

*(13) Closure plan means plans, designs and relevant data which specify the methods and schedule by which the operator will complete or cease disposal operations, prepare the area for long-term care and make the area suitable for other*

*uses, to achieve the purposes of the Solid Waste Management Law and the corresponding rules.*

*(14) Commercial waste means all types of solid waste generated by stores, offices, restaurants, warehouses and other nonmanufacturing activities, excluding residential and industrial wastes.*

*(15) Commingled recyclables means more than one(1) source separated recyclable material that has been placed in a single container for collection.*

*(16) Competent bedrock means solid rock that underlies unconsolidated deposits (including residuum) which displays limited evidence of weathering throughout the rock mass.*

*(17) Compost facility means a solid waste processing facility using a controlled process of microbial degradation of organic material which was not source-separated into a stable, nuisance-free humus-like product.*

*(18) Confining unit means a hydrostratigraphic unit of low permeability material above or below one (1) or more aquifers.*

*(19) Cover means soil or other suitable material that is used to cover compacted solid waste in a solid waste disposal area.*

*(20) Demolition landfill means a solid waste disposal area used for the controlled disposal of demolition wastes, construction materials, brush, wood wastes, soil, rock, concrete and inert solids insoluble in water.*

*(21) Department means the Department of Natural Resources.*

*(22) Detailed site investigation means the process of conducting a detail surface and subsurface geologic and hydrologic investigation for a proposed solid waste disposal area.*

*(23) Detail site investigation report means a written report that is submitted to the Missouri Department of Natural Resources concerning the results of a detailed surface and subsurface geologic and hydrologic investigation for a proposed solid waste disposal area.*

*(24) Detailed site investigation workplan means a plan for conducting a detailed surface and subsurface geologic and hydrologic investigation for a proposed solid waste disposal area.*

*(25) Director means the director of the Department of Natural Resources.*

*(26) Displacement means the relative movement of any two (2) sides of a fault measured in any direction.*

*(27) Existing sanitary landfill means any sanitary landfill that continues to receive solid waste in contiguous areas after October 9, 1993.*

*(28) Fault means a fracture or a zone of fractures in any material along which strata on one side have been displaced with respect to that on the other side.*

*(29) Final closure means that a solid waste disposal area has ceased taking waste, has completed all closure activities applicable to the Solid Waste Management Program's law and rules and has obtained closure approval from the program.*

*(30) Financial assurance instrument means an instrument or instruments including, but not limited to, cash or surety bond, letters of credit, corporate guarantee or secured trust fund, submitted by the applicant to ensure proper closure, post-closure care, or corrective action of a solid waste disposal area in the event that the operator fails to correctly perform closure, post-closure care, or corrective action except that the financial test for the corporate guarantee shall not exceed one and one-half (1 1/2) times the estimated cost of closure and post-closure. The form and content of the financial assurance instrument shall meet or exceed the requirements of the department. The instrument shall be reviewed and approved or disapproved by the attorney general.*

*(31) Flood area means any area inundated by one hundred (100)-year flood event, or the flood event with a one percent (1%) chance of occurring in any given year.*

*(32) Floodplain means the lowland and relatively flat areas adjoining inland waters, that are inundated by the one hundred (100)-year flood.*

*(33) Gas condensate means the liquid generated as a result of gas recovery process(es) at the solid waste disposal area.*

*(34) Geologic structure means the post-depositional deformation of bedrock and surficial materials resulting from physical stresses, (e.g. faults, folds).*

*(35) Groundwater means water in the saturated zone beneath the land surface.*

*(36) Groundwater monitoring plan means a description of the strategy for effectively monitoring groundwater at a proposed or existing solid waste disposal area.*

*(37) Hazardous wastes means any waste or combination of wastes, as determined by the Hazardous Waste Commission by rules and regulations, which, because of quantity, concentration, or physical, chemical or infectious characteristics, may cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illnesses, or pose a present or potential threat to the health of humans or the environment.*

*(38) Holocene means the most recent epoch of the Quaternary Period, extending from the end of the Pleistocene Epoch to the present.*

*(39) Horizontal expansion means an expansion of a disposal area beyond current permitted disposal area limits through issuance of a new permit by the department.*

*(40) Household consumer means an individual who generates used motor oil through the maintenance of the individual's personal motor vehicle, vessel, airplane, or other machinery powered by an internal combustion engine.*

*(41) Household consumer used motor oil collection center means any site or facility that accepts or aggregates and stores used motor oil collected only from household consumers or farmers who generate an average of twenty-five (25) gallons per month or less of used motor oil in a calendar year. This section shall not preclude a commercial generator*

*from operating a household consumer used motor oil collection center.*

*(42) Household consumer used motor oil collection system means any used motor oil collection center at publicly owned facilities of private locations, any curbside collection of household consumer used motor oil, or any other household consumer used motor oil collection program determined by the department to further the purposes of the Solid Waste Management Law.*

*(43) Household waste means any solid waste (including garbage, trash and sanitary waste in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas).*

*(44) Hydrostratigraphic unit means a geologic stratum or group of strata that exhibit similar characteristics with respect to transmission of fluids or gases.*

*(45) Incinerator means a solid waste processing facility consisting of any device or structure resulting in weight or volume reduction of solid waste by combustion.*

*(46) Incinerator residue means all wastes that remain after combustion, including bottom ash, fly ash, slag and grate siftings.*

*(47) Infectious waste means waste in quantities and characteristics as determined by the department by rule that is capable of producing an infectious disease because it contains pathogens of sufficient virulence and quantity so that exposure to the waste by a susceptible human host could result in an infectious disease. These wastes include isolation wastes, cultures and stocks of etiologic agents, blood and blood products, pathological wastes, other contaminated wastes from surgery and autopsy; contaminated laboratory wastes, sharps, dialysis unit wastes, discarded biological materials known or suspected to be infectious; provided, however, that infectious waste does not mean waste treated to department specifications.*

*(48) Infectious waste processing facility means a solid waste processing facility permitted specifically for the treatment or other processing of infectious waste.*

*(49) Karst terranes means areas where karst, with its characteristic surface and subsurface features, is developed as the result of dissolution of limestone, dolomite or other soluble rock. Characteristic physiographic features present in karst terranes include, but are not limited to, sinkholes, losing streams, caves, solution channels or conduits, springs and solution valleys.*

*(50) Land surveyor means a land surveyor licensed to practice by the Missouri Board for Architects, Professional Engineers, Professional Land Surveyors, and Landscape Architects.*

*(51) Leachate means liquid that has percolated through solid waste or has come in contact with solid waste and has extracted, dissolved or suspended materials from it.*

*(52) Leachate collection system means any combination of landfill base slopes, liners, permeable zones, pipes, sumps, pumps or retention structures that is designed, constructed and maintained to monitor leachate generation in a solid waste disposal area and collect and remove leachate as necessary to reduce leachate depth over a landfill base.*

*(53) Lead acid battery means a battery designed to contain lead and sulfuric acid with a nominal voltage of a least six (6) volts and of the type intended for use in motor vehicles and watercraft.*

*(54) Liner means a continuous layer(s) of soil, man-made materials, or both, beneath and on the sides of a solid waste disposal area which controls and minimizes the downward or lateral escape of solid waste, solid waste constituents or leachate.*

*(55) Liquid waste means any waste material that is determined to contain free liquids as defined by Method 9095 (Paint Filter Liquids Test), as described in Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods (EPA Pub. No. SW-846).*

*(56) Lithified earth material means all rock, including all naturally occurring and naturally formed aggregates or masses of minerals or small particles of older rock that formed by crystallization of magma or by induration of loose sediments. This term does not include man-made materials, such as fill, concrete and asphalt or unconsolidated earth materials, soil or regolith lying at or near the earth surface.*

*(57) Major appliance means clothes washers and dryers, water heaters, trash compactors, dishwashers, microwave ovens, conventional ovens, ranges, stoves, woodstoves, air conditioners, refrigerators, and freezers.*

*(58) Maximum horizontal acceleration in lithified earth material means the maximum expected horizontal acceleration depicted on a seismic hazard map, with a ninety percent (90%) or greater probability that the acceleration will not be exceeded in two hundred fifty (250) years, or the maximum expected horizontal acceleration based on a site-specific seismic risk assessment.*

*(59) Mercuric-oxide battery or mercury battery means a battery having a mercuric-oxide positive electrode, a zinc negative electrode, and an alkaline electrolyte, including mercuric-oxide button cell batteries generally intended for use in hearing aides and larger size mercuric-oxide batteries used primarily in medical equipment.*

*(60) Motor oil means any oil intended for use in a motor vehicle, as defined in section 301.010, RSMo, train, vessel, airplane, heavy equipment, or other machinery powered by an internal combustion engine.*

*(61) Municipal wastes means household waste, commercial, agricultural, governmental, industrial and institutional waste which have chemical and physical characteristics similar to those of household waste.*

*(62) New sanitary landfill means any sanitary landfill that has not received waste prior to October 9, 1993.*

*(63) On-site means the same or geographically contiguous property which may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a crossroads intersection and access is by crossing, as opposed to going along, the right-of-way. Noncontiguous properties owned by the same person but connected by a*

*right-of-way which s/he controls and to which the public does not have access is also considered on-site property.*

*(64) One hundred (100)-year flood means a flood that has a one percent (1%) or greater chance of recurring in any given year or a flood of a magnitude equalled or exceeded once in one hundred (100) years on the average over a significantly long period.*

*(65) Open burning means the combustion of solid waste without: 1) control of combustion air to maintain adequate temperature for efficient combustion, 2) containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion and 3) control of the emission of the combustion products.*

*(66) Open dump means an unpermitted solid waste disposal area at which solid wastes are disposed of in a manner that does not protect the environment, are susceptible to open-burning and are exposed to the elements, vectors and scavengers.*

*(67) Operator means a person who is responsible for the overall day-to-day operation and maintenance of a facility and along with the owner, obtains a solid waste permit from the department.*

*(68) Owner means any person holding a freehold interest in the land upon which the solid waste disposal area or solid waste processing facility is located.*

*(69) Owner/operator means owner and operator.*

*(70) Permeable geologic media means soil or lithified earth material that has a hydraulic conductivity of greater than 1.0 × 10-6 centimeters per second (cm/sec), as determined in situ aquifer tests, packer test or other methods approved by the department's geological survey program.*

*(71) Permit modification means any approval issued by the department which alters or modifies the provision of an existing permit previously issued by the department.*

*(72) Person means individual, partnership, corporation, association, institution, city, county, other political subdivision, authority, state agency or institution or federal agency or institution.*

*(73) Phase means a distinct area of a landfill, identifiable both in the plans and in the field by natural boundaries or permanent survey markers. A phase must include provisions for constructing and operating leachate collection systems, liners, gas collection systems and any other landfill structures independent of any other phase.*

*(74) Phased development means the division of the construction and operations of a solid waste disposal area permit into two (2) or more distinct phases in order to facilitate more orderly construction, operation, closure or post-closure care, or both, of the solid waste disposal area, with each phase being distinctly identifiable both in the plans and in the field by natural boundaries or permanent survey markers, or both.*

*(75) Piezometer means a well that is used to measure groundwater elevation or depth.*

*(76) Plans mean reports and drawings, including a narrative operating description, prepared to describe the solid waste disposal area or solid waste processing facility design, its proposed operation and closure and post-closure care.*

*(77) Poor foundation conditions means those areas where features exist which indicate that a natural or man-induced event may result in inadequate foundation support for the structural components of a landfill.*

*(78) Post-closure care means all maintenance and monitoring performed at a solid waste disposal area after closure is complete to prevent or minimize existing or potential health hazards, public nuisance or environmental pollution and in accordance with the terms of the permit, the Solid Waste Management Law and the corresponding rules.*

*(78) Post-closure plan means plans, designs and relevant data which specify the methods and schedules by which the operator shall perform necessary monitoring and care for the area after closure to achieve the purposes of the Solid Waste Management Law and the corresponding rules.*

*(80) Potable groundwater means groundwater that is safe for human consumption in that is is free from impurities in amounts sufficient to cause disease or harmful physiological effects and has less than ten thousand (10,000) parts per million total dissolved solids.*

*(81) Preliminary site investigation means an investigation conducted by the Division of Geology and Land Survey to determine the geohydrologic suitability for further exploration at a proposed solid waste disposal area.*

*(82) Professional engineer means a professional engineer licensed to practice by the Missouri Board for Architects, Professional Engineers, Professional Land Surveyors, and Landscape Architects.*

*(83) Qualified groundwater scientist means a scientist or licensed professional engineer who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields as may be demonstrated by state registration, professional certifications or completion of accredited university programs that enable that individual to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action.*

*(84) Rapid migration means the movement of fluids at rates in excess of ten feet (10') per year as determined by: tracer tests, age dating, in situ aquifer testing, packer tests or other methods as approved by the Geological Survey Program.*

*(85) Recovered materials means those material which have been diverted or removed from the solid waste stream for sale, use, reuse or recycling, whether or not they require subsequent separation and processing.*

*(86) Recycled content means the proportion of fiber or content in a product which is derived from post-consumer waste.*

*(87) Recycling means the separation and reuse or remanufacture of materials which might otherwise be disposed of as solid waste.*

*(88) Recycling center means any collection (not manufacturing) facility or system that accepts source-separated recyclable or commingled recyclable materials for processing and resale to markets for resource recovery for example: aluminum cans and scraps, tin, copper, glass, paper products, plastics, bi-metal and steel containers, ferrous and nonferrous metals.*

*(89) Resource recovery means a process by which recyclable and recoverable material is removed from the waste stream to the greatest extent possible, as determined by the department and pursuant to department standards, for reuse or remanufacture.*

*(90) Resource recovery facility means any facility including a material recovery facility in which recyclable and recoverable material is removed from the waste stream to the greatest extent possible, as determined by the department and pursuant to department standards, for reuse or remanufacture.*

*(91) Runoff means any liquid that drains over land from any part of a facility.*

*(92) Run-on means any liquid that drains over land onto any part of a facility.*

*(93) Salvaging means the controlled removal of solid waste materials for utilization.*

*(94) Sanitary landfill means a permitted solid waste disposal area employing an engineered method of disposing of solid wastes on land in a manner that minimizes environmental hazards by spreading the solid wastes in thin layers, compacting the solid wastes to the smallest practical volume and applying cover at the end of each operating day. Sanitary landfills include all disposal area that accept all types of solid waste including, but not limited to, commercial and residential solid waste.*

*(95) Scavenging means uncontrolled or unauthorized removal of solid waste from a solid waste disposal area or solid waste processing facility.*

*(96) Seismic impact zone means an area with a ten percent (10%) or greater probability that the maximum horizontal acceleration in lithified earth material, expressed as a percentage of the earth's gravitational pull (g), will exceed 0.10g in two hundred fifty (250) years.*

*(97) Site means any area proposed for construction of a solid waste disposal area.*

*(98) Sludge means the accumulated semi-solid suspension of settled solids deposited from wastewaters or other fluids in tanks or basins.*

*(99) Soil means sediments or other unconsolidated accumulations of solid particles produced by the physical and chemical disintegration of rocks and which may or may not contain organic matter.*

*(100) Solid waste means garbage, refuse and other discarded materials including, but not limited to, solid and semisolid waste materials resulting from industrial, commercial, agricultural, governmental and domestic activities, but does not include hazardous waste as defined in sections 260.360 to 260.434, RSMo recovered materials, overburden, rock, tailings, matte, slag or other waste material resulting from mining, milling or smelting.*

*(101) Solid waste disposal area means any area used for the disposal of solid waste from more than one (1) residential premises, or one (1) or more commercial, industrial, manufacturing, recreational or governmental operation.*

*(102) Solid waste management plan means a set of documents legally adopted by a state recognized governing body of a local or regional solid waste management program to administer the solid waste management system(s) for a minimum of ten (10) years.*

*(103) Solid waste management system means the entire process of managing solid waste in a manner which minimizes the generation and subsequent disposal of solid waste, including waste reduction, source separation, storage, collection, transportation, recycling, resource recovery, volume minimization, processing market development and disposal of solid wastes.*

*(104) Solid waste processing facility means any facility where solid wastes are salvaged and processed, including:*
*(A) A transfer station; or*
*(B) An incinerator which operates with or without energy recovery but excluding waste tire end-user facilities; or*
*(C) A material recovery facility which operates with or without composting.*

*(105) Solid waste technician means an individual who has successfully completed training in the practical aspects of the design, operation and maintenance of a permitted solid waste processing facility or solid waste disposal area in accordance with the Solid Waste Management Law and rules.*

*(106) Source reduction means practices which avoid, eliminate or minimize the generation of solid waste.*

*(107) Source-separated recyclable material means a waste material, for which a market exists, which has not been commingled with other solid waste but has been kept separate at the point of generation.*

*(108) Special waste means waste which is not regulated hazardous waste, which has physical or chemical characteristics, or both, that are different from municipal, demolition, construction and wood wastes, and which potentially require special handling.*

*(109) Special waste landfill means a solid waste disposal area permitted specifically for the disposal of one (1) or more special waste(s).*
*Special waste processing facility means a solid waste processing facility permitted specifically for the processing of one (1) or more special waste(s).*

*(111) Structural components means liners, leachate collection systems, final covers, run-on/runoff systems and any other component used in the construction and operation of the solid waste disposal area that is necessary for protection of human health and the environment.*

*(112) Tire means a continuous solid or pneumatic rubber covering encircling the wheel of any self-propelled vehicle not operated exclusively upon tracks, or a trailer as defined in Chapter 301, RSMo, except farm tractors and farm*

*implements owned and operated by a family farm or family farm corporation as defined in section 350.010, RSMo.*

*(113) Transfer station means a site or facility which accepts solid waste for temporary storage, or consolidation and further transfer to a waste disposal, processing or storage facility. Transfer station includes, but is not limited to, a site or facility where waste is transferred from: a rail carrier, motor vehicle or water carrier to another carrier, if the waste is removed from the container or vessel.*

*(114) Unstable area means a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of the landfill structural components responsible for preventing releases from a landfill. Unstable areas can include poor foundation conditions, areas, susceptible to mass movements and karst terranes.*

*(115) Uppermost aquifer means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the property boundary.*

*(116) Uppermost regional aquifer means the hydrostratigraphic unit closest to the ground surface that is capable of consistently yielding at least three hundred sixty (360) gallons per day of potable water to a well and is commonly used for private or public drinking water supply.*

*(117) Used motor oil means any motor oil which as a result of use, becomes unsuitable for its original purpose due to loss of original properties or the presence of impurities, but used motor oil shall not include ethylene glycol oils used for solvent purposes, oil fibers that have been drained of free-flowing used oil, oily waste, oil recovered from oil tank cleaning operation, oil spilled to land or water, or industrial non-lube oils such as hydraulic oils, transmission oils, quenching oils, and transformer oils.*

*(118) Utility waste means fly ash waste, bottom ash waste, slag waste and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels.*

*(119) Utility waste landfill means a solid waste disposal area used for fly ash waste, bottom ash waste, slag waste and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels.*

*(120) Vector means a carrier including, but not limited to, arthropod, birds and rodents capable of transmitting a pathogen from one organism to another.*

*(121) Vegetation means plant materials that have been specified in the closure/post-closure plans and have been specifically cultivated for cover on the landfill and borrow area. Vegetation should provide at least eighty percent (80%) coverage in order to control erosion and limit water infiltration.*

*(122) Washout means the carrying away of solid waste by waters of the one hundred (100)-year flood.*

*(123) Waste tire means a tire that is no longer suitable for its original intended purpose because of wear, damage, or defect.*

*(124) Waste tire collection center means a site where waste tires are collected prior to being offered for recycling or processing and where fewer than five hundred (500) tires are kept on-site on any given day.*

*(125) Waste tire end-user facility means a site where waste tires are used as a fuel or fuel supplement or converted into a useable product. Baled or compressed tires used in structures, or used at recreational facilities, or used for flood or erosion control shall be considered an end use.*

*(126) Waste tire generator means a person who sells tires at retail or any other person, firm, corporation, or government entity that generates waste tires.*

*(127) Waste tire processing facility means a site where tires are reduced in volume by shredding, cutting, chipping or otherwise altered to facilitate recycling, resource recovery or disposal.*

*(128) Waste tire site means a site at which five hundred (500) or more waste tires are accumulated, but not including a site owned or operated by a waste tire end-user that burns waste tires for the generation of energy or converts waste tires to a useful product.*

*(129) Waters of the state mean all rivers, streams, lakes and other bodies of surface and subsurface water lying within or forming a part of the boundaries of the state which are not entirely confined and located completely upon lands owned, leased or otherwise controlled by a single person or by two (2) or more persons jointly or as tenants in common and includes waters of the United States lying within the state.*

*(130) Water table means the upper surface of a zone of saturation where the fluid pressure of the body of groundwater is equal to atmospheric pressure.*

*(131) Well means any hole drilled in the earth for or in connection with the discovery or recovery of water, minerals, oil, gas or for or in connection with the underground storage of gas in natural formations.*

*(132) Wetlands means those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include, but are not limited to, swamps, marshes, bogs and similar areas.*

*133) Working face means that portion of the solid waste disposal area where solid wastes are discharged and are spread and compacted prior to the placement of cover.*

*(134) Yard waste means leaves, grass clippings, yard and garden vegation and Christmas trees. This term does not include stumps, roots or shrubs with intact root balls.]*

**(1) The terms used in 10 CSR 80 shall have the meanings set forth in section 260.200, RSMo, or this rule, unless the context of the term clearly indicates otherwise.**

**(A) Terms beginning with the letter A.**

**1. Active life or in operation means the period of operation beginning with the initial receipt of solid waste and ending at completion of closure activities.**

**2. Active portion means that part of the coal combustion residuals unit that has received or is receiving waste and that has not received department approval for closure.**

**3. Airport means a public-use airport open to the public without prior permission and without restrictions within the**

**physical capacities of available facilities.**

**4. Aquifer means a hydrostratigraphic unit capable of consistently yielding a sufficient amount of water to a monitoring well within twenty-four (24) hours of purging for sampling and analysis.**

**5. Areas susceptible to mass movement means those areas of influence (for example, areas characterized as having an active or substantial possibility of mass movement) where the movement of earth material at, beneath, or adjacent to the permitted solid waste disposal area, because of natural or anthropogenic events, results in the downslope transport of soil and rock material by means of gravitational influence. Areas of mass movement include, but are not limited to, landslides, avalanches, debris slides and flows, solifluction, block sliding, and rock fall.**

**(B) Terms beginning with the letter B.**

**1. Bedrock means the solid rock strata underlying solid and unconsolidated surface materials.**

**2. Beneficial use means the use of solid waste that provides a functional benefit, maintains the waste materials' value in the use, and is not a circumvention of the proper disposal of the waste material; substitutes for the use of or meets the product specifications of a virgin material, conserving natural resources that otherwise would need to be obtained through practices, such as extraction; and meets relevant product specifications, regulatory standards, or design standards, when available.**

**3. Beneficial use of Coal Combustion Residuals (CCR) means the CCR meet all of the following conditions:**

**A. The CCR must provide a functional benefit;**

**B. The CCR must substitute for the use of a virgin material, conserving natural resources that would otherwise need to be obtained through practices, such as extraction;**

**C. The use of the CCR must meet relevant product specifications, regulatory standards or design standards when available, and when such standards are not available, the CCR is not used in excess quantities; and**

**D. When unencapsulated, use of CCR involving placement on the land of twelve thousand and four hundred (12,400) tons or more in non-roadway applications, the user must demonstrate and keep records, and provide such documentation upon request, that environmental releases to groundwater, surface water, soil, and air are comparable to or lower than those from analogous products made without CCR, or that environmental releases to groundwater, surface water, soil, and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use.**

**4. Bird hazard means an increase in the likelihood of bird/aircraft collisions that may cause damage to the aircraft or injury to its occupants.**

**(C) Terms beginning with the letter C.**

**1. Cell; see definition of phase.**

**2. Closed Landfill means a permitted solid waste disposal area or a portion thereof that has ceased accepting waste and has been granted official closure, in writing, from the department. Note: Closed CCR units are defined separately.**

**3. Closed CCR Unit means placement of CCR in a CCR unit has ceased, and the owner or operator has completed closure of the CCR unit in accordance with closure and post closure requirements specified by the department.**

**4. Coal combustion residuals (CCR) means fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated from burning coal.**

**5. Coal combustion residuals landfill means an area of land or an excavation that receives coal combustion residuals and which is not a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground or surface coal mine, or a cave.**

**6. Coal combustion residuals surface impoundment means a natural topographic depression, man-made excavation, or diked area, which is designed to hold an accumulation of coal combustion residuals and liquids, and the unit treats, stores, or disposes of coal combustion residuals.**

**7. Coal combustion residuals unit means any coal combustion residuals landfill, coal combustion residuals surface impoundment, or lateral expansion of a coal combustion residuals unit, or a combination of more than one (1) of these units. This term includes both new and existing units, unless otherwise specified.**

**8. Commercial waste means any type of solid waste generated by a business, but does not include residential or industrial wastes.**

**9. Commingled recyclables means more than one (1) type of source-separated recyclable material that has been placed in a single container for collection.**

**10. Competent bedrock means solid rock that underlies unconsolidated deposits (including residuum) which displays limited evidence of weathering throughout the rock mass.**

**11. Compliance monitoring wells means wells installed and sampled to obtain groundwater or methane gas samples for analysis on a regular basis and compare with regulatory standards or prior monitoring results to determine impacts from the solid waste disposal area.**

**12. Compost means the product manufactured through the controlled aerobic, biological decomposition of biodegradable materials. The product has undergone mesophilic and thermophilic temperatures, which significantly reduces the viability of pathogens and weed seeds, and stabilizes the carbon such that it is beneficial to plant growth. Compost typically is used as a soil amendment, but may also contribute plant nutrients.**

**13. Compost facility means a permitted or permit exempt (as prescribed by rule) solid waste processing facility, which accepts organic material that does not have to be source-separated, uses a controlled process of microbial degradation and generates compost.**

**14. Confining unit means a hydrostratigraphic unit of low permeability material above or below one (1) or more aquifers.**

**15. Corrective Action means measures taken to resolve or remediate violations, including but not limited to, the cleanup of a release of a contaminant (i.e. release of contaminant(s) to stormwater, groundwater, the land or air, from a fire or oxidation event, slope failure, or other event causing damage to the infrastructure or waste mass of a solid waste disposal area, damage to a solid waste processing facility, or damage off site).**

**16. Cover means soil or other suitable material that is approved by the department to be placed over compacted solid waste in a permitted solid waste disposal area.**

**(D) Terms beginning with the letter D.**

**1. Detailed site investigation means the process of conducting a detailed surface and subsurface geologic and hydrologic investigation for a proposed solid waste disposal area.**

**2. Detailed site investigation report means a written report that is submitted to the department concerning the results of a detailed surface and subsurface geologic and hydrologic investigation for a proposed solid waste disposal area.**

**3. Detailed site investigation work plan means a plan for conducting a detailed surface and subsurface geologic and hydrologic investigation for a proposed solid waste disposal area.**

**4. Dike means an embankment, berm, or ridge of either natural or man-made materials used to prevent the movement of liquids, sludges, solids, or other materials.**

**5. Displacement means the relative movement of any two (2) sides of a fault measured in any direction.**

**(E) Terms beginning with the letter E.**

**1. Encapsulated beneficial use means a beneficial use that binds the waste into a solid matrix that minimizes its mobilization into the surrounding environment.**

**2. Existing CCR surface impoundment means a CCR surface impoundment that receives CCR both before and after October 19, 2015, or for which construction commenced prior to October 19, 2015, and receives CCR on or after October 19, 2015. A CCR surface impoundment has commenced construction if the owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction and a continuous on-site, physical construction program had begun prior to October 19, 2015.**

**3. Existing CCR landfill means a CCR landfill that receives CCR both before and after October 19, 2015, or for which construction commenced prior to October 19, 2015 and receives CCR on or after October 19, 2015. A CCR landfill has commenced construction if the owner or operator has obtained the federal, state, and local approvals or permits necessary to begin physical construction and a continuous on-site, physical construction program had begun prior to October 19, 2015.**

**4. Existing sanitary landfill means any sanitary landfill that continues to receive solid waste in contiguous areas after October 9, 1993.**

**(F) Terms beginning with the letter F.**

**1. Factor of safety (Safety factor) means the ratio of the forces tending to resist the failure of a structure to the forces tending to cause such failure as determined by accepted engineering practice.**

**2. Floodplain means the lowland and relatively flat areas adjoining inland waters that are inundated by the one hundred (100)-year flood.**

**3. Free liquids means liquids that readily separate from the solid portion of a waste under ambient temperature and pressure.**

**4. Freeboard for a coal combustion residuals surface impoundment or leachate basin means: 1) For a compositely lined berm or dike, the vertical distance between the lowest lined point on the berm or dike and the surface of the waste or liquid contained therein; and 2) For an unlined berm or dike, the vertical distance between the lowest point on the crest of the berm or dike and the surface of the waste or liquid contained therein.**

**5. Fugitive dust is particulate matter defined as dust that is not emitted from definable point sources, such as a stacks, chimneys or vents; and becomes airborne from activities such as construction, grubbing, grading, vehicle traffic or hauling, soil and wind erosion, or other activities that remove, store, transport or redistribute the material. Sources include but are not limited to open fields, roadways, and storage piles (i.e. CCR piles, landfills, and impoundments).**

**(G) Terms beginning with the letter G.**

**1. Gas condensate means the liquid generated as a result of gas recovery process(es) at a permitted solid waste disposal area.**

**2. Geologic structure means the post-depositional deformation of bedrock and surficial materials resulting from physical stresses, (e.g. faults, folds).**

**3. Groundwater means water in the saturated zone beneath the land surface.**

**4. Groundwater monitoring plan means a document describing the strategy to effectively monitor groundwater.**

**5. Groundwater monitoring program means an effective program designed and implemented to ensure detection of an impact to groundwater by the solid waste disposal area.**

**(H) Terms beginning with the letter H.**

**1. Hazard potential classification means the possible adverse incremental consequences that result from the release of water or stored contents due to failure of the diked coal combustion residuals surface impoundment or misoperation of the diked coal combustion residuals surface impoundment or its appurtenances. The hazard potential classifications include high hazard potential coal combustion residuals surface impoundment, significant hazard potential coal combustion residuals surface impoundment, and low hazard potential coal combustion residuals surface impoundment, which terms mean:**

**A. High hazard potential coal combustion residuals surface impoundment means a diked surface impoundment where failure or misoperation results in probable loss of human life;**

**B. Low hazard potential coal combustion residuals surface impoundment means a diked surface impoundment where failure or misoperation results in no probable loss of human life and low economic and/or environmental losses. Losses are limited principally to the surface impoundment owner's property; and**

**C. Significant hazard potential coal combustion residuals surface impoundment means a diked surface impoundment where failure or misoperation results in no probable loss of human life, but can cause economic loss, environmental damage, disruption of lifeline facilities, or impact other concerns.**

**2. Hazardous waste means any waste or combination of wastes, as determined by the Hazardous Waste Management Commission by rules and regulations, which, because of quantity, concentration, or physical or chemical characteristics, may cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illnesses, or pose a present or potential threat to the health of humans or the environment.**

**3. Height means the vertical measurement from the downstream toe of the coal combustion residuals surface impoundment at its lowest point to the lowest elevation of the crest of the coal combustion residuals surface impoundment.**

**4. Holocene means the most recent epoch of the Quaternary Period, extending from the end of the Pleistocene Epoch to the present.**

**5. Horizontal expansion means an expansion of a permitted solid waste disposal area beyond approved current disposal area limits through issuance of a new permit by the department.**

**6. Household waste means any solid waste, including garbage, trash, and sanitary waste in septic tanks, generated from daily activities derived within a household, including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas. Household waste does not include furniture, mattresses, appliances, carpet, rugs, aerosol cans, paint, or construction and demolition waste.**

**7. Hydrostratigraphic unit means a geologic stratum or group of strata that exhibit similar characteristics with respect to transmission of fluids or gases.**

**8. Hydraulic conductivity means the rate at which water can move through a permeable medium.**

**(I) Terms beginning with the letter I.**

**1. Inactive permitted solid waste disposal area means a solid waste disposal area that is not receiving waste, has not completed all closure requirements, and has not received approval for official closure from the department.**

**2. Inactive permitted solid waste processing facility means a processing facility that is not currently receiving waste.**

**3. Incinerator means a permitted solid waste processing facility consisting of any device or structure resulting in weight or volume reduction of solid waste by combustion.**

**4. Incinerator residue means all wastes that remain after combustion, including bottom ash, fly ash, slag, and grate siftings.**

**5. Infectious waste means waste in quantities and characteristics as determined by the department by rule that is capable of producing an infectious disease because it contains pathogens of sufficient virulence and quantity so that exposure to the waste by a susceptible human host could result in an infectious disease. These wastes include isolation wastes, cultures and stocks of etiologic agents, blood and blood products, pathological wastes, and other contaminated wastes from surgery and autopsy; contaminated laboratory wastes, sharps, dialysis unit wastes, discarded**

biological materials known or suspected to be infectious; provided, however, that infectious waste does not mean waste treated to department specifications.

6. Infectious waste processing facility means a solid waste processing facility that is permitted by the department for the transfer, treatment, or other processing of infectious waste. Treatment may include chemical sterilization, steam sterilization, ozone treatment, incineration, or other methods approved by the department.

(J) Terms beginning with the letter J.

1. (Reserved)

(K) Terms beginning with the letter K.

1. Karst terrains mean areas where karst, with its characteristic surface and subsurface features, is developed as the result of dissolution of limestone, dolomite, or other soluble rock. Characteristic physiographic features present in karst terrain include, but are not limited to, sinkholes, losing streams, caves, solution channels or conduits, springs, and solution valleys.

(L) Terms beginning with the letter L.

1. Land surveyor means a land surveyor licensed to practice by the Missouri Board for Architects, Professional Engineers, Professional Land Surveyors, and Professional Landscape Architects.

2. Landfill decomposition gas means the byproduct from the decomposition of organic material in landfills and is composed of approximately fifty percent (50%) methane, fifty percent (50%) carbon dioxide ($CO_2$), and trace amounts of non-methane organic compounds.

3. Lateral expansion means a new cell or phase added to the horizontal waste limits at an existing permitted solid waste disposal area. These include:

A. A coal combustion residuals surface impoundment or landfill expanded after October 19, 2015; or

B. A sanitary landfill expanded after October 9, 1993.

4. Leachate means liquid that has percolated through solid waste or has come in contact with solid waste and has extracted, dissolved, or suspended materials from it.

5. Leachate collection system means any combination of solid waste disposal area base slopes, liners, permeable zones, pipes, sumps, pumps, or retention structures that is designed, constructed, and maintained to manage and monitor leachate generation in a permitted solid waste disposal area and collect and remove leachate as necessary to reduce leachate depth.

6. Liner means a continuous layer(s) of soil, man-made materials, or both, beneath and on the sides of a permitted solid waste disposal area, which controls and minimizes the downward or lateral escape of solid waste, solid waste constituents, or leachate.

7. Liquefaction factor of safety means the factor of safety (safety factor) determined using analysis under liquefaction conditions.

8. Liquid waste means any waste material that is determined to contain free liquids as defined by Method 9095 (Paint Filter Liquids Test), as described in Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods (EPA Pub. No. SW-846) as written on the effective date of this rule.

9. Lithified earth material means all rock, including all naturally occurring and naturally formed aggregates or masses of minerals or small particles of older rock that formed by crystallization of magma or by induration of loose sediments. This term does not include man-made materials, such as fill, concrete and asphalt, or unconsolidated earth materials, soil, or regolith lying at or near the earth surface.

(M) Terms beginning with the letter M.

1. Maximum horizontal acceleration in lithified earth material means the maximum expected horizontal acceleration depicted on a seismic hazard map, with a ninety percent (90%) or greater probability that the acceleration will not be exceeded in two hundred fifty (250) years, or the maximum expected horizontal acceleration based on a site-specific seismic risk assessment.

2. Municipal solid wastes means household waste, commercial, agricultural, governmental, industrial, and institutional wastes that have chemical and physical characteristics similar to those of household waste.

(N) Terms beginning with the letter N.

1. New coal combustion residual surface impoundment means a coal combustion residuals surface impoundment that has not received waste prior to the effective date of this rule.

2. New permitted solid waste disposal area means any solid waste disposal area that has not received waste prior to the effective date of this rule.

(O) Terms beginning with the letter O.

1. Official closure means that a permitted solid waste disposal area has ceased taking waste, has completed all required closure activities, and has received written notice of official closure from the department.

2. On-site means the same or geographically contiguous property that may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a crossroads intersection and access is by crossing, as opposed to going along, the right-of-way. Noncontiguous properties owned by the same person but connected by a right-of-way that s/he controls and to which the public does not have access is also considered on-site property.

3. One hundred (100)-year flood means a flood that has a one percent (1%) or greater chance of recurring in any given year or a flood of a magnitude equaled or exceeded once in one hundred (100) years on the average over a significantly long period.

4. Open burning means the combustion of solid waste without—

A. Control of combustion air to maintain adequate temperature for efficient combustion;

B. Containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion; and

C. Control of the emission of the combustion products.

5. Open dump means an unpermitted solid waste disposal area at which solid wastes are disposed of in a manner contrary to statute and regulations that does not protect the environment, are susceptible to open-burning, and are exposed to the elements, vectors, and scavengers.

6. Owner means any person holding a freehold interest in the land upon which the permitted solid waste disposal area or solid waste processing facility is located.

(P) Terms beginning with the letter P.

1. Permeable geologic media means soil or lithified earth material that has a hydraulic conductivity of greater than $1.0 \times 10^{-6}$ centimeters per second (cm/sec), as determined by in situ aquifer tests, packer tests, or other methods approved by the department.

2. Phase or cell means a distinct area of a permitted solid waste disposal area, identifiable both in the plans and in the field by natural boundaries or permanent survey markers. A phase or cell must include provisions for constructing and operating leachate collection systems, liners, gas collection systems, and any other landfill structures independent of any other phase or cell.

3. Phased development means the division of the construction and operations of a solid waste disposal area permit into two (2) or more distinct phases in order to facilitate more orderly construction, operation, closure or post-closure care, or both, of the permitted solid waste disposal area, with each phase being distinctly identifiable both in the plans and in the field by natural boundaries or permanent survey markers, or both.

4. Piezometer means a well that is used to measure groundwater elevation or depth.

5. Plans mean reports and drawings, including a narrative

**operating description, prepared to describe the permitted solid waste disposal area or solid waste processing facility design, its proposed operation, and closure and post-closure care.**

**6. Poor foundation conditions means those areas where features exist which indicate that a natural or man-induced event may result in inadequate foundation support for the structural components of a permitted solid waste disposal area.**

**7. Post-closure care means all maintenance and monitoring performed at a permitted solid waste disposal area, after it is designated as officially closed by the department, to prevent or minimize existing or potential health hazards, public nuisance, or environmental pollution and in accordance with the terms of the permit, the Solid Waste Management Law and the corresponding rules.**

**8. Potable groundwater means groundwater that is safe for human consumption in that it is free from impurities in amounts sufficient to cause disease or harmful physiological effects and has less than ten thousand (10,000) parts per million total dissolved solids.**

**9. Preliminary site investigation means an investigation conducted by the department to determine the geohydrologic suitability for further exploration at a proposed solid waste disposal area.**

**10. Probable maximum flood means the flood that may be expected from the most severe combination of critical meteorologic and hydrologic conditions that are reasonably possible in the drainage basin.**

**11. Professional engineer means a professional engineer licensed to practice by the Missouri Board for Architects, Professional Engineers, Professional Land Surveyors, and Professional Landscape Architects.**

**(Q) Terms beginning with the letter Q.**

**1. Qualified groundwater scientist means a scientist, registered geologist, or licensed professional engineer who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields as may be demonstrated by state registration, professional certifications or completion of accredited university programs that enable that individual to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action.**

**2. Qualified professional means a scientist, registered geologist, or licensed professional engineer who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and has sufficient training and experience in overseeing an activity as may be demonstrated by state registration, professional certifications, or completion of accredited university programs that enable that individual to make sound professional judgments.**

**(R) Terms beginning with the letter R.**

**1. Rapid migration means the movement of fluids at rates in excess of ten feet (10') per year as determined by: tracer tests, age dating, in situ aquifer testing, packer tests, or other methods as approved by the department.**

**2. Recycling center means any collection (not manufacturing) facility or system that accepts source-separated recyclable or commingled recyclable materials for processing and resale to markets for resource recovery, including but not limited to, aluminum cans and scraps, tin, copper, glass, paper products, plastics, bi-metal and steel containers, ferrous and nonferrous metals.**

**3. Residential (household) activities means activities conducted during the routine, day-to-day operation of a residence.**

**4. Residential waste see definition of household waste.**

**5. Runoff means rainwater, leachate, or any other liquid that drains over land from any part of a permitted solid waste disposal area or solid waste processing facility.**

**6. Run-on means rainwater, leachate, or any other liquid that drains over land onto any part of a permitted solid waste disposal area or solid waste processing facility.**

**(S) Terms beginning with the letter S.**

**1. Salvaging means the controlled removal of solid waste materials from a permitted solid waste disposal area or solid waste processing facility.**

**2. Scavenging means uncontrolled or unauthorized removal of solid waste from a permitted solid waste disposal area or solid waste processing facility.**

**3. Seismic factor of safety means the factor of safety (safety factor) determined using analysis under earthquake conditions using the peak ground acceleration for a seismic event with a two percent (2%) probability of exceedance in fifty (50) years, equivalent to a return period of approximately two thousand five hundred (2,500) years, based on the U.S. Geological Survey (USGS) seismic hazard maps for seismic events with this return period for the region where the coal combustion residuals surface impoundment is located.**

**4. Seismic impact zone means an area with a ten percent (10%) or greater probability that the maximum horizontal acceleration in lithified earth material, expressed as a percentage of the earth's gravitational pull (g), will exceed 0.10g in two hundred fifty (250) years.**

**5. Site means any area proposed for construction of a solid waste disposal area.**

**6. Slope protection means engineered or non-engineered measures installed on the upstream or downstream slope of the coal combustion residuals surface impoundment to protect the slope against wave action or erosion, including but not limited to rock riprap, wooden pile, or concrete revetments, vegetated wave berms, concrete facing, gabions, geotextiles, or fascines.**

**7. Sludge means the accumulated semi-solid suspension of settled solids deposited from wastewaters or other fluids in tanks or basins.**

**8. Soil means sediments or other unconsolidated accumulations of solid particles produced by the physical and chemical disintegration of rocks and which may contain organic matter.**

**9. Solid waste management plan means a set of documents legally adopted by a state recognized governing body of a local or regional solid waste management program to administer the solid waste management system(s) for a minimum of ten (10) years.**

**10. Solid waste processing means one (1) or any combination of the following processes applied in the management of solid waste: salvaging, recovery, consolidation, sorting, transfer, incineration, composting, shredding or other size reduction, baling, or treatment of solid waste.**

**11. Source reduction means practices which avoid, eliminate, or minimize the generation of solid waste.**

**12. Source-separated recyclable material means a waste material, for which a market exists, which has not been commingled with other solid waste but has been kept separate at the point of generation.**

**13. Special waste means waste which is not a regulated hazardous waste, which has physical or chemical characteristics, or both, that are different from municipal, demolition, construction, and wood wastes, and which potentially require special handling.**

**14. Special waste landfill means a solid waste disposal area permitted specifically for the disposal of one (1) or more special waste(s).**

**15. Special waste processing facility means a solid waste processing facility permitted specifically for the processing of one (1) or more special waste(s).**

**16. Static factor of safety means the factor of safety (safety factor) determined using analysis under the long-term, maximum storage pool loading condition, the maximum surcharge pool loading condition, and under the end-of-construction loading**

**condition.**

**17. Structural components means liners, leachate collection systems, final covers, run-on/runoff systems and any other component used in the construction and operation of a permitted solid waste disposal area that is necessary for protection of human health and the environment.**

**(T) Terms beginning with the letter T.**

**1. Trade waste see definition of commercial waste.**

**2. Transfer station means a permitted solid waste processing facility which accepts waste for temporary storage, transfer, or consolidation, and further transport to a permitted solid waste disposal area or solid waste processing facility.**

**3. Truck-to-truck transfer means the act of transferring solid waste from one (1) solid waste collection vehicle into another collection vehicle, and which activity allows no waste to come into contact with the ground.**

**(U) Terms beginning with the letter U.**

**1. Unstable area means a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of the solid waste disposal area's structural components responsible for preventing releases from a solid waste disposal area. Unstable areas can include poor foundation conditions, areas susceptible to mass movements, and karst terranes.**

**2. Uppermost aquifer means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the property boundary. Upper limit is measured at a point nearest to the natural ground surface to which the aquifer rises during the seasonal high groundwater table.**

**3. Uppermost regional aquifer means the hydrostratigraphic unit closest to the ground surface that is capable of consistently yielding at least three hundred sixty (360) gallons per day of potable water to a well and is commonly used for private or public drinking water supply.**

**4. Utility waste means fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels.**

**(V) Terms beginning with the letter V.**

**1. Vector means a carrier including, but not limited to, arthropod, birds, and rodents capable of transmitting a pathogen from one (1) organism to another.**

**2. Vegetation means permanent plant materials that have been specified in the closure/post-closure plans and have been cultivated specifically for cover on the solid waste disposal area and its borrow area.**

**3. Vertical expansion means an expansion of a permitted solid waste disposal area vertically above the approved existing disposal area limits through issuance of a permit modification by the department.**

**(W) Terms beginning with the letter W.**

**1. Washout means the carrying away of solid waste by waters of the one hundred (100)-year flood.**

**2. Waste boundary means a vertical surface located at the waste limit of the solid waste disposal area extending down into the uppermost aquifer.**

**3. Waters of the state see section 644.016, RSMo.**

**4. Water table means the upper surface of a zone of saturation where the fluid pressure of the body of groundwater is equal to atmospheric pressure.**

**5. Well see section 256.603, RSMo.**

**6. Wetlands means those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include, but are not limited to, swamps, marshes, bogs, and similar areas.**

**7. Working face means that portion of the solid waste disposal area where solid wastes are discharged, spread, and compacted prior to the placement of cover.**

**(X) Terms beginning with the letter X.**

**1. (Reserved)**

**(Y) Terms beginning with the letter Y.**

**1. (Reserved)**

**(Z) Terms beginning with the letter Z.**

**1. (Reserved)**

**(2) All other words used in this chapter have their usual customary and accepted meaning, and all words of a technical nature, or specific to the solid waste industry, will be given that meaning which is generally accepted in the solid waste industry.**

*AUTHORITY: sections 260.200[, RSMo Supp. 2005] and 260.225, RSMo [2000]* ***2016****. Original rule filed Dec. 11, 1973, effective Dec. 21, 1973. For intervening history, please consult the* ***Code of State Regulations****. Amended: Filed Dec. 31, 2018.*

*PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars ($500) in the aggregate.*

*PRIVATE COST: This proposed amendment will not cost private entities more than five hundred dollars ($500) in the aggregate.*

*NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed amendment with the Missouri Department of Natural Resources, 1101 Riverside Drive, Jefferson City, MO. To be considered, comments will be received until March 28, 2019. A public hearing is scheduled for 1:00 p.m. March 21, 2019, at the LaCharrette Conference Room, 1101 Riverside Drive, Jefferson City, Missouri.*

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 80—Solid Waste Management
*[Chapter 11—Utility Waste Landfill]*
## Chapter 11—Utility Waste *and Coal Combustion Residuals* Landfills

### PROPOSED AMENDMENT

**10 CSR 80-11.010 Design and Operation—*Utility Waste and Coal Combustion Residuals Landfills*.** The department is amending the chapter and rule title, deleting the purpose and all sections, and adding new purpose and sections (1)–(20).

*PURPOSE: The purpose of this amendment is to modify the provisions for Utility Waste Landfills and make those provisions applicable to Coal Combustion Landfills as specified in 40 CFR 257 and section 260.242, RSMo.*

*[PURPOSE: This rule pertains to the design and operation of a utility waste landfill.*

*(1) General Provisions. This rule is intended to provide for utility waste landfill operations that will have minimal impact on the environment. The rule sets forth requirements and the method of satisfactory compliance to ensure that the design, construction and operation of utility waste landfills will protect the public health, prevent nuisances and meet applicable environmental standards. The requirement subsections contained in this rule delineate minimum levels of performance required of any utility waste landfill operation. The satisfactory compliance subsections are presented as the authorized methods by which the objectives of the*

*requirements can be realized. The satisfactory compliance subsections are based on the practice of landfilling utility waste. If techniques other than those listed as satisfactory compliance in design or operation are used, it is the obligation of the utility waste landfill owner/operator to demonstrate to the department in advance that the techniques to be employed will satisfy the requirements. Procedures for the techniques shall be submitted to the department in writing and approved by the department in writing prior to being employed. Notwithstanding any other provision of these rules, when it is found necessary to meet objectives of the requirement subsections, the department may require changes in design or operation as the condition warrants. This rule applies to new utility waste landfill construction and operating permits issued on or after the effective date of this rule.*

*(2) Solid Waste Accepted.*

*(A) Requirement. Fly ash, bottom ash, boiler slag or other slag waste and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels may be accepted at a utility waste landfill. Clean fill may also be accepted.*

*(B) Satisfactory Compliance—Design. The plans shall specify the types of waste to be accepted for disposal at a utility waste landfill.*

*(C) Satisfactory Compliance—Operations.*

*1. The first layer of waste placed above the liner shall be monitored to ensure that the liner's integrity has been maintained.*

*2. The disposal of waste approved in the construction permit shall be conducted in accordance with approved design and operating plans plus any additional procedures determined by the department as necessary to protect the water, air and land resources and to provide for safety of the operators and waste haulers.*

*(3) Solid Waste Excluded.*

*(A) Requirement. In consultation with the department, the applicant shall determine what wastes are to be accepted and shall identify them in the plan and the application for construction permit form.*

*(B) Satisfactory Compliance—Design.*

*1. The criteria used to determine whether the waste can be accepted shall include the design of the landfill, the physical and chemical characteristics of the wastes, the quantity of the wastes, the proposed operating procedures.*

*2. The plans shall specify the operating procedures for screening and removal of wastes which are excluded from disposal.*

*(C) Satisfactory Compliance—Operations.*

*1. The operating procedures for screening of wastes and for removal of wastes which are excluded from disposal shall be implemented.*

*2. Bulk liquid waste shall not be placed in a utility waste landfill unless the waste is leachate derived from the utility waste landfill, and the utility waste landfill is designed with a liner and leachate collection system as described in sections (9) and (10) of this rule.*

*3. Sluicing of waste for transport to proposed utility waste landfills shall be allowed only so long as the hydraulic head on top of the landfill liner can be maintained at less than one foot (1') of head, and the collected leachate and runoff meet all Water Pollution Control Program permit requirements.*

*(4) Site Selection.*

*(A) Requirement. Site selection and utilization shall include a study and evaluation of geologic and hydrologic conditions and soils at the proposed utility waste landfill and an evaluation of the environmental effect upon the projected use of the completed utility waste landfill. Applications for utility waste landfill construction permits received on or after the effective date of this rule shall document compliance with all applicable siting restriction requirements contained in paragraphs (4)(B)1. through 5. of this rule.*

*(B) Satisfactory Compliance—Design.*

*1. Owners/operators of proposed utility waste landfills, located in one hundred (100)-year floodplains shall demonstrate to the department that the utility waste landfill will not restrict the flow of the one hundred (100)-year flood, reduce the temporary water storage capacity of the floodplain, or result in washout of waste so as to pose a hazard to public health or the environment.*

*2. Wetlands.*

*A. Proposed utility waste landfills shall not be located in wetlands, unless the owner/operator can make the following demonstrations to the department:*

*(I)The presumption that a practicable alternative to the proposed landfill is available which does not involve wetlands is clearly rebutted;*

*(II) The construction and operation of the utility waste landfill will not—*

*(a) Cause or contribute to violations of any applicable state water quality standard;*

*(b) Violate any applicable toxic effluent standard or prohibition under section 307 of the federal Clean Water Act;*

*(c) Jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of a critical habitat, protected under the Endangered Species Act of 1973; and*

*(d) Violate any requirement under the Marine Protection, Research, and Sanctuaries Act of 1972 for the protection of a marine sanctuary;*

*(III) The utility waste landfill will not cause or contribute to significant degradation of wetlands. The owner/operator shall demonstrate the integrity of the utility waste landfill and its ability to protect ecological resources by addressing the following factors:*

*(a) Erosion, stability and migration potential of native wetland soils, muds and deposits used to support the landfill;*

*(b) Erosion, stability and migration potential of dredged and fill materials used to support the landfill;*

*(c) The volume and chemical nature of the waste disposed of in the landfill;*

*(d) Impacts on fish, wildlife and other aquatic resources and their habitat from potential release of waste from the landfill;*

*(e) The potential effects of contamination of the wetland and the resulting impacts on the environment; and*

*(f) Any additional factors, as necessary, to demonstrate that ecological resources in the wetland are sufficiently protected;*

*(IV) Steps have been taken to attempt to achieve no net loss of wetlands (as defined by acreage and function) by first avoiding impacts to wetlands to the maximum extent practicable as required by subparagraph (4)(B)2.A. of this rule, then minimizing unavoidable impacts to the maximum extent practicable, and finally offsetting remaining unavoidable wetland impacts through all appropriate and practicable compensatory mitigation actions (for example, restoration of existing degraded wetlands or creation of man-made wetlands); and*

*(V) The requirements of paragraph (4)(B)3. may be*

*satisfied by the owner/operator obtaining a United States Army Corps of Engineers permit for construction in a wetland or by demonstrating that the wetland is not regulated by the United States Army Corps of Engineers or other appropriate agency.*

*3. Proposed utility waste landfills located in the seismic impact zone shall not be located within two hundred feet (200') of a fault that has had displacement in Holocene time unless that owner/operator demonstrates to the department that an alternative setback distance of less than two hundred feet (200') will prevent damage to the structural integrity of the landfill and will be protective of public health and the environment.*

*4. Owners/operators of proposed utility waste landfills located in an unstable area shall demonstrate to the department that the utility waste landfill's design ensures that the integrity of the structural components of the utility waste landfill will not be disrupted. The owner/operator shall consider the following factors, at a minimum, when determining whether an area is unstable:*

*A. On-site or local rock or soil conditions that may result in failure or significant differential settling;*

*B. On-site or local geologic or geomorphologic features; and*

*C. On-site or local human-made features or events (both surface and subsurface).*

*5. Plans shall include:*

*A. A map showing initial and proposed topographies at contour intervals of five feet (5') or less. This map shall have a scale of not less than one inch (1") equal to one hundred feet (100'). If the entire site cannot be illustrated on one (1) plan sheet, an additional map with appropriate horizontal and vertical scales that allows the site to be shown on one (1) plan sheet is required;*

*B. A map showing the land use and zoning within one-fourth (1/4) mile of the utility waste landfill including location of all residences, buildings, wells, water courses, springs, lakes, rock outcroppings, caves, sinkholes and soil or rock borings. All electric, gas, water, sewer and other utility easements or lines that are located on, under or over the utility waste landfill shall be shown on the map. This map shall have a scale of not less than one inch (1") equals four hundred feet (400');*

*C. A description of the projected use of the closed utility waste landfill if the landfill is not located on the power plant site. In addition to maintenance programs and provisions, where necessary for monitoring and controlling leachate, the plans shall specify appropriate design, construction and operating provisions for the utility waste landfill to complement the projected future use;*

*D. An evaluation of the characteristics and quantity of available on-site soil with respect to its suitability for utility waste landfilling operations. The engineering properties and quantity estimates of the on-site soil shall be discussed and shall include:*

*(I) Texture. Sieve and hydrometer analyses shall be performed to determine grain size distribution of representative soil samples. Texture may be determined by using the procedures described in ASTM method D422-63 or the procedures described in Appendix D of Engineer Manual 1110-2-1906 prepared by the United States Army Corps of Engineers;*

*(II) Plasticity. The liquid limit, plastic limit and plasticity index of representative soil samples shall be determined. Plasticity may be determined by using the procedures described in ASTM method D4318-84 or the procedures described in Appendix III of Engineer Manual 1110-2-1906, prepared by the United States Army Corps of Engineers;*

*(III) Hydraulic conductivity. Laboratory hydraulic conductivity tests shall be performed upon undisturbed representative soil samples using a flexible wall permeameter (ASTM D-5084). If an aquifer is found to be laterally continuous across the anticipated limit of the proposed landfill, the hydraulic conductivity of each significant continuous geologic unit must be determined. Examples of accepted field tests are in situ slug or pump tests which isolate the geologic unit of interest.*

*(IV) Areal extent and depth. The areal extent and depth of soil suitable for landfill construction shall be determined. Variations in soil depth shall be clearly described.*

*6. If the base of the landfill liner will be in contact with groundwater, the applicant shall demonstrate to the department's satisfaction that the groundwater will not adversely impact the liner.*

*7. Owners/operators of proposed utility waste landfills shall demonstrate how adverse geologic and hydrologic conditions may be altered or compensated for via surface water drainage diversion, underdrains, sumps, and other structural components. All alterations of the site shall be detailed in the plans. Precipitation, evapotranspiration and climatological conditions shall be considered in site selection and design.*

*8. The results of the detailed site investigation report will be the basis to determine if a secondary liner, such as a geomembrane, or a leachate collection system is mandatory to ensure that there is no environmental impact from the landfill. Owner/operators of proposed utility waste landfills shall make a demonstration based on the following:*

*A. An evaluation of the physical and/or chemical characteristics of the waste; and*

*B. Documentation through modeling, testing, or other research data proving that the quality of groundwater underlying the proposed site will not be affected and that there is no potential for migration of fluids from the utility waste landfill.*

*(C) Satisfactory Compliance—Operations.*

*1. The utility waste landfill shall be accessible to vehicles which the utility waste landfill is designed to serve.*

*2. Temporary storage of waste for more than sixty (60) days is not permitted. Temporarily stored wastes shall be managed so as to prevent uncontrolled surface water runoff and erosion. All Water Pollution Control Program permits and approvals necessary to comply with the Missouri Clean Water Law and corresponding rules shall be obtained from the department.*

*(5) Design.*

*(A) Requirement. Plans, addendums, as-built drawings, or other documents which describe the design, construction, operation, or closure of a utility waste landfill or which request an operating permit modification for the utility waste landfill shall be prepared or approved by a professional engineer. These documents shall be stamped or sealed by the professional engineer and submitted to the department for review and approval.*

*1. Plans submitted as part of an application for a construction permit after the effective date of this rule shall provide for the maintenance of a one hundred foot (100')-buffer zone between utility waste landfill operations and any property line(s) or any right of way(s) of adjoining road(s) when the property line(s) is inside the right of way(s) to provide for assessment and/or remedial actions.*

*2. The plan shall include an operating manual describing the various tasks that shall be performed during a typical shift.*

*3. Owners/operators of utility waste landfills shall*

*demonstrate how adverse geologic and hydrologic conditions may be altered or compensated for via surface water drainage diversion, underdrains, sumps, and other structural components. All alterations of the site shall be detailed in the plans.*

*A. Precipitation, evapotranspiration and climatological conditions shall be considered in site selection and design.*

*B. Engineering plans and specifications that have computer model attached to them shall list the limitations and assumptions of each model used in the application.*

*4. Plans for stability analyses for all stages of construction shall include:*

*A. Settlement and bearing capacity analyses shall be performed on the in-place foundation material beneath the disposal area. The effect of foundation material settlement on the liner and leachate collection shall be evaluated;*

*B. Stability analyses shall be performed on all liner and leachate system components;*

*C. Leachate collection pipe material and drainage media shall be analyzed to demonstrate that these components possess structural strength to support maximum loads imposed by overlying waste materials and equipment;*

*D. Waste mass stability analyses shall be performed on the disposal area at final waste grade conditions and at intermediate slope conditions; and*

*E. Stability analyses shall be performed on all final cover system components, including an evaluation of the effect of waste settlement on the final cover system components, side slope liner system components, surface water management system components and gas migration system components.*

*(B) Satisfactory Compliance—Operations.*

*1. Construction and operation of the utility waste landfill shall be conducted in accordance with the engineering plans and specifications approved by the department.*

*2. The operating manual describing the various tasks that shall be performed during a typical shift shall be available to employees for reference and to the department upon request.*

*3. Phase development drawings shall be included with the application.*

*(6) Quality Assurance/Quality Control (qa/qc).*

*(A) Requirement. The construction, operation and closure of the utility waste landfill shall include quality assurance and quality control measures to ensure compliance with approved plans and all applicable federal, state and local requirements. The permittee shall be responsible for ensuring that the qa/qc supervision is conducted by a qualified professional.*

*(B) Satisfactory Compliance—Design.*

*1. Plans shall include:*

*A. A detailed description of the qa/qc testing procedures that will be used for every major phase of construction. The description must include at a minimum, the frequency of inspections, field testing, laboratory testing, equipment to be utilized, the limits for test failure, and a description of the procedures to be used upon test failure; and*

*B. A detailed procedure for the reporting and recording of qa/qc activities and testing results.*

*2. All qa/qc reports shall be reviewed and approved by a professional engineer.*

*(C) Satisfactory Compliance—Operations.*

*1. At a minimum qa/qc testing shall include:*

*A. Testing of each lift of the soil component of the final cover and landfill liner for field density and field moisture once per every ten thousand (10,000) square feet and providing relatively uniform coverage over the landfill surface;*

*B. Laboratory hydraulic conductivity testing of the soil used for liner construction once for every five thousand (5,000) cubic yards of liner constructed;*

*C. Continuous visual classification of borrow soil during landfill construction by qualified qa/qc inspector(s) or certifying professional engineer;*

*D. Measuring the elevations of the final cover and the landfill liner on a maximum spacing of one hundred-foot (100') centers and at one hundred-foot (100') intervals along each line where a break in slope occurs.*

*(I) Landfill liner. Measuring the elevations of the top and bottom of the landfill liner;*

*(II) Final cover. Measuring the elevations of the top and bottom of—*

*(a) The compacted clay layer; and*

*(b) The soil layer supporting vegetative growth; and*

*E. Verification of the thickness of the leachate collection media shall be made by the qualified qa/qc inspector(s) or certifying professional engineer on one hundred-foot (100') centers.*

*2. If a geomembrane is proposed—*

*A. Nondestructive testing of all seams of the geomembrane in the landfill liner; and*

*B. Random destructive testing of the seams of the geomembrane liner in the landfill liner on an average frequency of at least one (1) every five hundred (500) linear feet of seams.*

*3. All testing shall be performed under the direction of qualified qa/qc inspectors for every major phase of construction.*

*4. The qa/qc plan shall include the following components:*

*A. Leachate collection system. Reports prepared or approved by the professional engineer transmitting the results of the qa/qc procedures and stating that the leachate collection system was constructed according to the approved design or describing any deviations from the approved design; and*

*B. Liner. The liner specified by section (10) of this rule shall be constructed in accordance with the approved design specifications. The qa/qc procedures shall include:*

*(I) Evidence that the liner material(s) utilized meet the minimum design specifications;*

*(II) Evidence that field construction techniques are resulting in the minimum design specifications (for example, soil density tests);*

*(III) Evidence that the liner construction is proceeding as designed through regular verification using a predetermined system of horizontal and vertical survey controls; and*

*(IV) Oversight of the liner construction and qa/qc procedures by a professional engineer. This shall include reports prepared, or approved, by the professional engineer transmitting the results of the qa/qc procedures and stating that the liner was constructed according to design or describing any deviations from the design.*

*(7) Survey Control.*

*(A) Requirement. Benchmarks, horizontal controls and boundary markers shall be established by a land surveyor to check and mark the location and elevations of the utility waste landfill. Construction stakes marking an individual section(s) or phase(s) shall be established as necessary to ensure the construction and operation(s) proceed in accordance with approved plans.*

*(B) Satisfactory Compliance—Design.*

*1. Boundary survey. A survey of the entire permitted acreage shall be conducted in accordance with the current Minimum Standards for Property Boundary Surveys, 10 CSR 30-2.010.*

*2. Vertical control. The land surveyor shall establish a permanent monument as a benchmark or confirm the prior establishment of a benchmark on or adjacent to the property. The elevation shall be on the North American Vertical Datum, 1929 or similar well-documented datum. If no such established datum exists within one (1) mile of the property, a project datum may be assigned to the benchmark. The benchmark shall be clearly shown on the survey plat.*

*3. Horizontal control. The land surveyor shall establish three (3) permanent monuments as horizontal control stations. These stations shall form a triangle whose sides shall not be less than one thousand feet (1,000'). The location of the horizontal control will be shown on the survey plat.*

*4. The land surveyor shall establish boundary markers designating the entire permitted acreage which shall be composed of material which will last throughout the life of the utility waste landfill.*

*5. Construction stakes. Stakes marking the individual section(s) or phase(s) specifically designated for the placement of waste are to be placed in locations and composed of material that is consistent with the operating life of the section or phase.*

*(C) Satisfactory Compliance—Operations.*

*1. All boundary markers, benchmarks, horizontal control stations and construction stakes shall be clearly marked and identified.*

*2. Missing or displaced benchmarks or horizontal control stations shall be replaced or reestablished by or under the supervision of a land surveyor. The registered surveyor shall prepare a plat showing the replacement or reestablishment and furnish a copy to the department.*

*3. Missing or displaced construction stakes shall be replaced or reestablished as necessary to ensure the operations proceed in accordance with approved plans.*

*4. The permanent monuments designating vertical and horizontal control stations and boundary markers designating the entire permitted acreage shall be placed prior to receiving an operating permit as required by 10 CSR 80-2.020(2)(B).*

*5. Construction stakes marking the active area shall be placed prior to deposition of waste in individual areas, sections or phases of the utility waste landfill as designated by the approved engineering plans.*

*(8) Water Quality.*

*(A) Requirement. The location, design, construction and operation of the utility waste landfill shall minimize environmental hazards and shall conform to applicable ground and surface water quality standards and requirements. Applicable standards are federal, state or local standards and requirements that are legally enforceable.*

*(B) Satisfactory Compliance—Design.*

*1. Plans shall include:*

*A. A report on the detailed geologic and hydrologic investigation of the site as required by 10 CSR 80-2.015;*

*B. Current and projected use of water resources in the potential zone of influence of the utility waste landfill;*

*C. Groundwater elevation and proposed separation between the lowest point of the lowest cell and the predicted maximum water table elevation;*

*D. Potential interrelationship of the utility waste landfill, local aquifers and surface waters based on historical records or other sources of information;*

*E. Proposed location and design of observation wells, sampling stations and testing program planned; and*

*F. Provisions for surface water runoff control to minimize infiltration and erosion of cover. All Water Pollution Control Program permits and approvals necessary to comply with requirements of the Missouri Clean Water Law and corresponding rules shall be obtained from the department.*

*(I) The area of the watershed which will be affected by the utility waste landfill shall be specified.*

*(II) On-site drainage structures and channels shall be designed to prevent flow onto the active portion of the utility waste landfill during peak discharge from at least a twenty-five (25)-year storm. The engineering calculations and assumptions shall be included and explained in the engineering report.*

*(III) On-site drainage structures and channels shall be designed to collect and control at least the water volume resulting from a twenty-four (24)-hour, twenty-five (25)-year storm.*

*(IV) On-site drainage and channels shall be designed to empty expeditiously after storms to maintain the design capacity of the system.*

*(V) Contingency plans for on-site management of surface water which comes in contact with solid waste shall be specified.*

*(C) Satisfactory Compliance—Operations.*

*1. Surface water courses and runoff shall be diverted from the utility waste landfill (especially from the working face) by devices such as ditches, berms, and proper grading. The utility waste landfill shall be constructed and graded so as to promote rapid surface water runoff without excessive erosion. Regrading shall be done as required during construction and after completion to avoid ponding of precipitation and to maintain cover integrity.*

*2. The quantity of water coming in contact with solid waste shall be minimized by the daily operational practices. Water which comes in contact with the waste shall be managed as leachate in accordance with the approved plans.*

*(9) Leachate Collection Systems.*

*(A) Requirement. A leachate collection system shall be designed, constructed, maintained and operated to collect, and remove leachate from the utility waste landfill, unless the applicant provides adequate demonstrations specified in paragraph (4)(B)8. of this rule, and as determined by the department on a site-by-site basis.*

*(B) Satisfactory Compliance—Design. The potential for leachate generation shall be evaluated in determining the design of the system. Leachate flow quantities shall be estimated and the method(s) of leachate management shall be outlined. Leachate storage facilities shall comply with all currently applicable requirements of the Missouri Clean Water Law and corresponding rules. Construction qa/qc procedures shall be included. Where a leachate treatment system is designed to have a discharge to the waters of the state, any required discharge permit(s) shall be obtained from the department in accordance with requirements of the Missouri Clean Water Law and corresponding rules.*

*1. Minimum design criteria for leachate collection systems shall include the following:*

*A. Ponds and/or tanks of sufficient capacity to store, equalize flow to disposal systems, and allow system/operating flexibility;*

*B. Construction material chemically resistant to the waste managed in the utility waste landfill and the leachate expected to be generated;*

*C. Construction materials of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying utility wastes, cover, leachate, and by any equipment*

*used at the utility waste landfill;*

*D. Design and operate systems to function without clogging through the scheduled operating life, closure and post-closure of the utility waste landfill;*

*E. Design and operate to maintain less than one foot (1') depth of leachate over the disposal area liner; and*

*F. Design and operate collection systems so that any leachate formed will flow by gravity into collection areas from which the leachate can be removed, treated, and disposed.*

*2. Leachate management by recirculation within the permitted fill area shall be conducted in accordance with an approved engineering method.*

*3. Any leachate collection system open to the atmosphere must be designed to prevent discharge during a twenty-five (25)-year, twenty-four (24)-hour storm event. Plans shall include the calculations detailing the design.*

*4. The applicant shall provide a method of leachate management in the application. A secondary or "backup" method of leachate disposal will be required unless the applicant can demonstrate that a secondary method will not be necessary.*

*(C) Satisfactory Compliance—Operations.*

*1. The leachate collection system specified by subsection (9)(B) shall be properly installed and operated in accordance with the permit and the approved design and plans and maintained for the twenty (20)-year post-closure care period, or as long as the department determines necessary.*

*2. Leachate generated by the utility waste landfill shall be controlled on-site and not be allowed to discharge off the utility waste landfill property or discharge into the waters of the state, except in accordance with the approved plans and the Missouri Clean Water Law and corresponding rules.*

*(10) Liner System.*

*(A) Requirement. A liner shall be placed on all surfaces to minimize the migration of leachate from the utility waste landfill.*

*(B) Satisfactory Compliance—Design. A composite or a clay liner shall be required at all utility waste landfills applying for a construction permit after the effective date of this rule that includes—*

*1. For a composite liner a lower component that consists of at least a two-foot (2') layer of compacted soil with a hydraulic conductivity of no more than 1 x 10-5 cm/sec. A compacted soil liner at a minimum shall be constructed of six to eight-inch (6 8") lifts, compacted to ninety-five percent (95%) of standard Proctor density with the moisture content between optimum moisture content and four percent (4%) above the optimum moisture content, or within other ranges of density and moisture such that are shown to provide for the liner to have a hydraulic conductivity no more than 1 x 10-5 cm/sec. For a single compacted clay liner a component that consists of at least a two-foot (2') layer of compacted soil with a hydraulic conductivity of no more than 1 x 10-7 cm/sec. A compacted soil liner at a minimum shall be constructed of six to eight-inch (6 8") lifts, compacted to ninety-five percent (95%) of standard Proctor density with the moisture content between optimum moisture content and four percent (4%) above the optimum moisture content, or within other ranges of density and moisture such that are shown to provide for the liner to have a hydraulic conductivity no more than 1 x 10-7 cm/sec. The design shall include a detailed explanation of the construction techniques and equipment necessary to achieve ninety-five percent (95%) of the standard Proctor density under field conditions. The design also shall include qa/qc procedures to be followed during construction of the liner. The composite liner and the compacted clay liner shall be protected from the adverse effects of desiccation or freeze/thaw cycles after construction, but prior to placement of waste. Traffic shall be routed so as to minimize the detrimental impact on the constructed liner prior to placement of waste. The soils used for this purpose shall meet the following minimum specifications:*

*A. Be classified under the Unified Soil Classification Systems as CL, CH, or SC (ASTM Test D2487-85);*

*B. Allow more than thirty percent (30%) passage through a No. 200 sieve (ASTM Test D1140);*

*C. Have a liquid limit equal to or greater than twenty (20) (ASTM Test D4318-84);*

*D. Have a plasticity index equal to or greater than ten (10) (ASTM Test D4318-84); and*

*E. Have a coefficient of permeability equal to or less than 1 x 10-7 cm/sec for the compacted clay liner and 1 x 10-5 cm/sec for the composite liner when compacted to ninety-five percent (95%) of standard Proctor density with the moisture content between optimum moisture content and four percent (4%) above the optimum moisture content, when tested by using a flexible wall permeameter (ASTM D-5084) or other procedures approved by the department;*

*2. For the composite liner an upper component consisting of a minimum thirty (30) mil thick geomembrane shall be installed if the applicant for a proposed utility waste landfill does not provide adequate demonstrations specified in paragraph (4)(B)8. of this rule, and as determined by the department on a site-by-site basis. Geomembrane components consisting of high density polyethylene (HDPE) shall be at least sixty (60) mil thick;*

*3. The geomembrane component shall be installed in direct and uniform contact with the compacted soil component so as to minimize the migration of leachate through the geomembrane should a break occur; and*

*4. All utility waste landfills shall have a minimum bottom slope in any direction of flow of at least one percent (1%).*

*(C) Satisfactory Compliance—Operations.*

*1. A test pad shall be constructed at the site and tested to verify that the proposed construction and quality control (qc) procedures are adequate to ensure that the soil component of the composite liner system will meet the requirements of paragraph (10)(B)1. of this rule.*

*A. Construction and qc procedures to be used during test pad construction shall be described in detail in the approved engineering report, and shall be identical to those proposed for liner construction with the following additions: At least two (2) laboratory hydraulic conductivity tests shall be performed on undisturbed samples of the completed test pad;*

*(I) At least one (1) in situ hydraulic conductivity test shall be performed on the completed test pad; and*

*(II) At least two (2) test pits shall be excavated into the completed test pad to observe interlift bonding.*

*B. If test pad construction and testing shows that the proposed methods are not sufficient to meet the requirements of paragraph (10)(B)1. of this rule, a new test pad shall be constructed using revised procedures approved by the department.*

*2. For phased construction, only one (1) test pad will be required.*

*3. A final report shall be submitted to the department which describes in detail the construction and qc procedures which were used to achieve satisfactory test pad performance.*

*A. The report must be approved by the department prior to beginning construction of any portion of the composite*

*liner system in the disposal area.*

*B. The report shall serve as guidance for construction of the soil component of the composite liner system.*

*4. The requirement for a test pad may be waived provided—*

*A. The applicant can demonstrate to the department's satisfaction the construction and qc procedures are identical to those described in the approved engineering report and will result in construction of a liner which meets the requirements of paragraph (10)(B)1. of this rule; and*

*B. The soils proposed for liner construction meet the following minimum specifications:*

*(I) Have a plasticity index greater than fifteen (15) and less than thirty (30) (ASTM test D4318-84);*

*(II) Allow more than fifty percent (50%) passage through a number 200 seive (ASTM D11400); and*

*(III) Have less than ten percent (10%) by weight particle sizes greater than two (2) mm.*

*The liner specified in subsection (10)(B) of this rule shall be constructed in accordance with the approved design specifications.*

*(11) Groundwater Monitoring.*

*(A) Requirements. The owner/operator of a utility waste landfill shall implement a groundwater monitoring program capable of determining the utility waste landfill's impact on the quality of groundwater underlying the utility waste landfill.*

*(B) Satisfactory Compliance—Design.*

*1. All utility waste landfills permitted after the effective date of this rule, must be in compliance with all groundwater monitoring requirements of section (11).*

*2. The department may require utility waste landfills permitted prior to the effective date of this rule, to comply with part or all of section (11) if it is determined necessary by the department.*

*3. The owner/operator of a utility waste landfill shall establish the potential for migration of fluid generated by the utility waste landfill into the groundwater by an evaluation of—*

*A. A water balance of precipitation, evapotranspiration, runoff and infiltration;*

*B. At a minimum, the following characteristics:*

*(I) Geologic materials;*

*(II) Description of soil and bedrock to a depth adequate to allow evaluation of water quality protection provided by the soil and bedrock;*

*(III) Groundwater elevation;*

*(IV) Proposed separation between the lowest point of the lowest cell and the maximum water table elevation;*

*(V) Proximity of the utility waste landfill to water supply wells or surface water;*

*(VI) Rate and direction of groundwater flow; and*

*(VII) Current and projected use of water resources in the potential zone of influence of the utility waste landfill.*

*4. A groundwater monitoring system shall be capable of yielding groundwater samples for analysis and shall consist of—*

*A. Monitoring wells (at least one (1)) installed hydraulically upgradient; that is, in the direction of increasing static head from the utility waste landfill. The numbers, locations and depths shall be sufficient to yield groundwater samples that are—*

*(I) Representative of background water quality in the groundwater near the utility waste landfill; and*

*(II) Not affected by the utility waste landfill; and*

*B. Monitoring wells (at least three (3)) installed hydraulically down gradient; that is, in the direction of decreasing hydraulic head from the utility waste landfill. The number, locations and depths shall ensure that they detect any significant amounts of fluids generated by the utility waste landfill that migrate from the utility waste landfill to the groundwater. Monitoring wells, or clusters of monitoring wells, shall be capable at a minimum, of monitoring all saturated zones down to and including the uppermost aquifer.*

*5. All monitoring wells shall be constructed as per 10 CSR 23-4.*

*(C) Satisfactory Compliance—Operations.*

*1. Groundwater monitoring wells.*

*A. Groundwater monitoring wells shall be installed so that the number, spacing and depths of monitoring systems shall be determined based upon site-specific technical information that shall include thorough characterization of:*

*(I) Aquifer thickness, groundwater flow rate, groundwater flow direction including seasonal and temporal fluctuations in groundwater flow; and*

*(II) Saturated and unsaturated geologic units and fill materials overlying the uppermost aquifer, materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer; including, but not limited to, thicknesses, stratigraphy, lithology, hydraulic conductivities and porosities.*

*B. The design and installation of groundwater monitoring well systems shall be observed, supervised, and certified by a qualified groundwater scientist and approved by the department.*

*C. All groundwater monitoring wells shall be operational prior to the acceptance of wastes, unless other arrangements are approved by the department.*

*D. The design, installation, development, and decommissioning of monitoring wells and piezometers must be performed in accordance with 10 CSR 23-4.*

*2. Sampling and reporting.*

*A. Each groundwater monitoring program must include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide an accurate representation of groundwater quality at the background and down gradient wells installed in compliance with subsection (11)(B). The owner/operator must submit the sampling and analysis program to the department for approval. The program must include procedures and techniques for—*

*(I) Monitoring well maintenance;*

*(II) Monitoring well redevelopment;*

*(III) Monitoring well depth measurement and hydraulic levels;*

*(IV) Monitoring well purging and sampling utilizing dedicated equipment;*

*(V) Equipment calibration;*

*(VI) Decontamination and field blanks;*

*(VII) Sample and duplicate sample collection;*

*(VIII) Sample preservation;*

*(IX) Sample labeling;*

*(X) Sample handling;*

*(XI) Field measurements;*

*((XII) Field documentation;*

*(XIII) Chain of custody control;*

*(XIV) Sample shipment;*

*(XV) Analytical procedures;*

*(XVI) Qa/qc control—field and laboratory; and*

*(XVII) Statistical testing strategy per paragraph (11)(C)5. for each parameter's concentrations.*

*B. Each groundwater monitoring program shall include sampling and analytical methods that are appropriate for groundwater sampling and that accurately measure hazardous constituents and other monitoring parameters in groundwater samples. Analysis shall be performed on unfiltered samples.*

*C. The sampling procedures and frequency shall be protective of human health and the environment.*

*D. Groundwater elevations shall be measured in each well immediately prior to purging, each time groundwater is sampled. The owner/operator shall determine the rate and direction of groundwater flow each time groundwater is sampled. Groundwater elevations in wells which monitor the same utility waste landfill shall be measured within a period of time short enough to avoid temporal variations in groundwater flow which could preclude accurate determination of groundwater flow rate and direction.*

*3. Baseline/background monitoring.*

*A. The owner/operator shall establish background groundwater quality for each of the monitoring parameters or constituents required under paragraph (11)(C)4. To establish background, a minimum of four (4) quarterly samples of statistically independent sample data shall be obtained and analyzed from all monitoring wells during a minimum of one (1) year following well installation.*

*B. The number of samples collected to establish background values for groundwater quality data shall satisfy the requirements of subsection (11)(C) and shall be consistent with the appropriate statistical procedures determined pursuant to paragraph (11)(C)5. The sampling procedures shall be those specified under paragraph (11)(C)4. for detection monitoring and paragraph (11)(C)6. for assessment monitoring.*

*4. Detection monitoring.*

*A. The owner/operator shall obtain and analyze water samples from the groundwater monitoring wells during the months of May and November of each calendar year.*

*B. The following parameters shall be analyzed each time a sample is obtained:*

*Chemical Oxygen Demand (COD in milligrams per liter (mg/l));*

*Chlorides (Cl, mg/l);*

*Iron (Fe, (mg/l));*

*pH (units);*

*Specific Conductance (Conductivity at twenty-five degrees Celsius (25°C) (µmho/cm));*

*Total Dissolved Solids (TDS, in mg/l);*

*All parameters listed in Appendix I of this rule; and*

*Additionally, the water level in each well shall be measured at the time the sample is taken.*

*C. The sample results, and any results of statistical analysis determining statistically significant increases for any parameter per paragraph (11)(C)5., shall be submitted to the department in one (1) report within ninety (90) days of when samples are collected.*

*D. In the case of all detection monitoring requirements previously listed, the department may specify an appropriate alternative frequency for repeated sampling and analysis during the active life of the utility waste landfill (including closure) and the post-closure period. The department may add additional parameters or delete parameters on a site-by-site basis through an evaluation of waste and leachate characteristics of the utility waste landfill.*

*E. The electronic submission of groundwater data is required. This submission shall be in the format and method as prescribed by the department.*

*5. The owner/operator shall specify in the operating record one (1) or more of the following statistical methods to be used in evaluating groundwater monitoring data for each monitoring constituent. The statistical test chosen shall be conducted separately for each constituent—*

*A. A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The procedure shall include estimation and testing of the contrasts between each down gradient well's mean and the upgradient means for each parameter;*

*B. An ANOVA based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The procedure shall include estimation and testing of the contrasts between each down gradient well's median and the background medians for each parameter;*

*C. A confidence interval procedure in which an interval for each parameter in each down gradient well is constructed around the mean/median of the particular well's data or data residuals and compared to the mean/median of pooled background well data;*

*D. A prediction interval procedure in which an upper prediction limit for an interval for each parameter in each well is compared to subsequently obtained values from the same well;*

*E. A prediction interval procedure in which an upper prediction limit for an interval for each parameter constructed on the pooled background well data or data residuals is compared to subsequently obtained values from each down gradient well;*

*F. A tolerance interval procedure in which an upper tolerance limit for an interval for each parameter's pooled background well data is compared to each down gradient well's concentration values;*

*G. A multicomparison procedure utilizing any recommended U.S. Environmental Protection Agency combinations of intra-well and inter-well procedures for each parameter;*

*A control chart approach meeting the performance standards of part (11)(C)5.J.(III), that gives control limits for each parameter;*

*I. A different statistical test method that meets the performance standards of subparagraph (11)(C)5.J. of the rule. The owner/operator must submit the statistical test method to the department for approval before the use of the alternative test; and*

*J. Any statistical method chosen under paragraph (11)(C)5. of this rule shall comply with the following performance standards, as appropriate:*

*(I) The statistical method used to evaluate groundwater monitoring data shall be appropriate for the distribution of the concentration data for the chemical parameters or hazardous constituents. If the distribution of the concentration data for the chemical parameters or hazardous constituents is shown by the owner/operator to be inappropriate for a normal data distribution theory test, then the data should be transformed or a distribution-free (nonparametric) theory test should be used. If the concentration data distributions for the constituents of each well differ, more than one (1) statistical method will be needed;*

*(II) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentration or a groundwater protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experiment-wide error rate for each testing period shall be no less than 0.05, however, the Type I error of no less than 0.01 for individual well comparisons shall be maintained. This performance standard does not apply to tolerance intervals, prediction intervals or control charts;*

*(III) If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter values shall be protective of human health and the environment. The selection of this method shall be determined after considering the number of*

*samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern;*

*(IV) If a confidence interval, tolerance interval or a prediction interval is used to evaluate groundwater monitoring data, then the level of confidence for each interval, and the percentage of the population that each interval contains, shall be protective of human health and the environment. Selection of one (1) or more of these methods shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern;*

*(V) The statistical method shall account for data below the limit of detection with one (1) or more statistical procedures that are protective of human health and the environment. Any practical quantization limit that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility; and*

*(VI) If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.*

*6. Response to statistical analysis.*

*A. If the comparison for the upgradient wells shows a statistically significant increase (or pH change) over background, the owner/operator shall submit this information to the department.*

*B. If the comparisons for down gradient wells show a statistically significant increase (or pH change), resulting from the landfill, over background, the owner/operator shall within ninety (90) days of the last sampling event obtain additional groundwater samples from those down gradient wells where a statistically significant difference was detected, split the samples in two (2), and obtain analyses of all additional samples to determine whether the significant statistical difference was a result of laboratory error.*

*C. If the additional samples show a statistically significant increase (or pH change) over background, the owner/operator must demonstrate to the department within ninety (90) days that a source other than the utility waste landfill caused the contamination or that the statistically significant increase resulted from an error in sampling, analysis, statistical evaluation or natural variation. If the owner/operator cannot make this demonstration to the department, the owner/operator shall submit a plan to the department for a groundwater assessment monitoring program and implement the program as described in subparagraphs (11)(C)6.D. through H. of this rule. The plan shall specify the following:*

*(I) The number, location and depth of wells;*

*(II) Sampling and analytical methods for the monitoring parameters listed in Appendix I of this rule on a quarterly basis;*

*(III) Evaluation procedures, including any use of previously gathered groundwater quality information;*

*(IV) The rate and extent of migration of the contaminant plume in the groundwater; and*

*(V) The concentrations of the contaminant plume in the groundwater.*

*D. After obtaining the results from the initial or subsequent sampling events required in subparagraph (9)(C)6.D. the owner/operator shall—*

*(I) Within fourteen (14) days, notify the department and place a notice in the operating record identifying the constituents that have been detected;*

*(II) Within ninety (90) days, and on a quarterly basis after that, resample all wells and conduct analysis for all constituents listed in Appendix I to this rule and notify the department of the constituent concentrations. A minimum of one (1) sample from each well sampled (background and down gradient) shall be collected and analyzed during these sampling events;*

*(III) Establish background concentrations for any new constituents detected during subsequent monitoring events; and*

*(IV) Establish groundwater protection standards for all new constituents detected during subsequent monitoring events.*

*E. If the concentrations of all constituents listed in Appendix I to this rule are shown to be at or below background levels as established in paragraph (11)(C)3. of this rule for two (2) consecutive sampling periods, the owner/operator may reinstate detection monitoring at the utility waste landfill as specified under subparagraph (11)(C)3.C. of this rule.*

*F. If the concentrations of any constituents listed in Appendix I of this rule are above background values, but all concentrations are below the groundwater protection standard established under subparagraph (11)(C)6.D. of this rule using the statistical procedures in paragraph (11)(C)5. of this rule, the owner/operator shall notify the department and the department may require the owner/operator to—*

*(I) Continue assessment monitoring; or*

*(II) Develop a corrective measures assessment, or both.*

*G. If one (1) or more constituents listed in Appendix I of this rule are detected at levels above the groundwater protection standard as established under subparagraph (11)(C)6.D., the owner/operator shall—*

*(I) Provide the department with a report assessing potential corrective measures;*

*(II) Characterize the nature and extent of the release by installing additional monitoring wells as necessary; install at least one (1) additional monitoring well at the facility boundary in the direction of contaminant migration and sample this well in accordance with paragraph (11)(C)6. of this rule and, if required by the department, notify all persons who own the land or reside on the land that directly overlies any part of the plume of contamination if contaminants have migrated off-site if indicated by sampling of wells; and*

*(III) Continue assessment monitoring as per the groundwater quality assessment plan, and implement the approved corrective action program specified in part (11)(C)6.G.(I) of this rule.*

*H. The results of implementation of the assessment monitoring program shall be submitted to the department at the end of each year or an alternate time period approved by the department.*

*(12) Air Quality.*

*(A) Requirement. The design, construction and operation of the utility waste landfill shall minimize environmental hazards and shall conform to applicable ambient air quality and source control regulations.*

*(B) Satisfactory Compliance—Design. Plans shall include an effective dust control program.*

*(C) Satisfactory Compliance—Operations. A burning permit or exemption may be obtained from the department permitting the burning of tree trunks, tree limbs, and vegetation during clearing and grubbing. In areas operating under exemption certificates authorized by Chapter 643, RSMo approval shall be obtained from the local pollution control agency. The operating procedures and location for burning practices shall be submitted to the department for review and written approval. Burning at the utility waste landfill shall be conducted in accordance with Chapter 643, RSMo,*

*the corresponding rules, the terms, conditions, or both, of the plans, permit, or both, and all local requirements.*

*(13) Aesthetics.*

*(A) Requirement. The utility waste landfill shall be designed and operated at all times in an aesthetically acceptable manner.*

*(B) Satisfactory Compliance—Design. Plans shall include an effective vegetative growth program.*

*(C) Satisfactory Compliance—Operations.*

*1. Wastes that are easily moved by wind shall be covered, as necessary, to prevent becoming airborne and scattered.*

*2. On-site vegetation should be cleared only as necessary. Natural windbreaks, such as green belts, should be maintained where they will improve the appearance and operation of the utility waste landfill.*

*3. Mining operations for the purpose of removing waste for beneficial reuse shall be conducted in such a manner as to not detract from the appearance of the utility waste landfill. Materials removed from the utility waste landfill shall be stored for not more than sixty (60) days prior to beneficial reuse. Materials removed from the utility waste landfill shall be stored so as to prevent infiltration, surface water runoff and erosion from these removed materials. All Water Pollution Control Program permits and approvals necessary to comply with the Missouri Clean Water Law and corresponding rules shall be obtained from the department.*

*(14) Cover.*

*(A) Requirement. Cover shall be applied to minimize infiltration of precipitation, airborne waste; and provide a pleasing appearance.*

*(B) Satisfactory Compliance—Design. The owner/operator shall prepare a written closure plan that describes the steps necessary to close all utility waste landfill phases at any point during the active life of the utility waste landfill in accordance with the requirements of 10 CSR 80-2.030(4)(A). In addition, the final cover requirements specified in the closure and post-closure plans shall specify—*

*1. Cover sources, quantities and soil classification (Unified Soil Classification System or United States Department of Agriculture classification system);*

*2. The capability of the cover to perform the functions listed in subsection (14)(A) of this rule;*

*3. Surface grades and side slopes needed to promote maximum runoff, without excessive erosion, and to minimize infiltration. Final side slopes shall not exceed twenty-five percent (25%) unless it has been demonstrated in a detailed slope stability analysis approved by the department that the slopes can be constructed and maintained throughout the entire operational life and post-closure period of the landfill;*

*4. Procedures to establish and maintain vegetative growth to combat erosion and improve appearance of idle and completed areas. Procedures shall include seeding rate, fertilizer rate, soil conditioning rate and provisions for mulching;*

*5. Procedures to maintain a cover integrity, for example, regrading and recovering;*

*6. Methods for borrow areas to be reclaimed so as to restore aesthetic qualities and prevent excessive erosion;*

*7. The final slope of the top of the utility waste landfill shall have a minimum slope of one percent (1%); and*

*8. Shear failure analyses shall be included where intermediate or final slopes exceed twenty-five percent (25%). However, the department will waive the analyses for the slopes of twenty-five percent (25%) or less except in seismic impact zones.*

*(C) Satisfactory Compliance—Operations.*

*1. Cover shall be applied at a total thickness of at least one foot (1') of compacted soil on filled areas of the utility waste landfill which are idle for more than sixty (60) days, and on all final side slopes at the end of each filling sequence.*

*2. No active, intermediate or final slope shall exceed thirty-three and one-third percent (33 1/3%).*

*3. As each phase of the utility waste landfill is completed, a final cover system shall be installed consisting of one foot (1') of compacted clay with a coefficient of permeability of 1 x 10-5 cm/sec or less and overlaid with one foot (1') of soil capable of sustaining vegetative growth.*

*4. The installation of the final cover systems shall include provisions for slope stability.*

*5. The department may approve the use of an alternative final cover system provided that the owner/operator can demonstrate to the department that the alternative design will be at least equivalent to the final cover system described in paragraph (14)(C)3. of this rule.*

*6. Surface grades and side slopes shall be maintained to promote runoff without excessive erosion.*

*7. Vegetation shall be established within one hundred eighty (180) days of application of the cover required by paragraphs (14)(C)3. and 4. of this rule. Vegetation shall be established and maintained to minimize erosion and surface water infiltration.*

*8. Regrading and recovering shall be performed as necessary to maintain cover slope and integrity.*

*9. Borrow areas shall be reclaimed in accordance with the approved plans.*

*10. The compacted clay portion of the final cover shall consist of soils classified under the Unified Soil Classification System as CH, CL, ML, SC or MH.*

*(15) Compaction.*

*(A) Requirement. In order to conserve utility waste landfill site capacity, thereby preserving land resources and to minimize moisture infiltration and settlement, waste and cover shall be compacted to the smallest practicable volume.*

*(B) Satisfactory Compliance—Design.*

*1. Arrangements shall be made and indicated in the plans where substitute equipment will be available to provide uninterrupted service during routine maintenance periods or equipment breakdowns.*

*2. The plans shall specify the equipment that should be available to conduct the utility waste landfill operation.*

*(C) Satisfactory Compliance—Operations.*

*1. Waste handling equipment, during filling operations, shall be capable of performing and shall perform the following functions:*

*A. Spread the wastes to be compacted in layers no more than two feet (2') thick, while confining it to the smallest practicable area;*

*B. Compact the spread wastes to the smallest practicable volume; and*

*C. Place, spread and compact the final cover as much as practicable.*

*2. A preventive maintenance program should be employed to maintain equipment in operating order.*

*3. No waste shall be disposed of in water where the presence of the water will prohibit the proper spreading and compaction of the waste or where a mosquito breeding problem would be created.*

*(16) Safety.*

*(A) Requirement. The utility waste landfill shall be designed, constructed and operated in a manner so as to*

*protect the health and safety of personnel and others associated with and affected by the operation.*

*(B) Satisfactory Compliance—Design.*

*1. Provisions shall be included in the plans to control and limit access to the utility waste landfill in a manner that is compatible with the surrounding land use.*

*2. Provisions shall be included in the plans to control dust for safety purposes and to prevent a nuisance to the surrounding area.*

*(C) Satisfactory Compliance—Operation.*

*1. Adequate communications equipment shall be available at the utility waste landfill for emergency situations.*

*2. Access to the utility waste landfill shall be controlled and shall be by established roadways only. The utility waste landfill shall be accessible only when operating personnel are on duty.*

*3. Traffic signs or markers should be provided to promote an orderly traffic pattern to and from the discharge area and, if necessary, to maintain efficient operating conditions.*

*4. Dust control provisions shall be utilized as necessary for safety purposes and to prevent a nuisance to the surrounding area.*

*(17) Records.*

*(A) Requirement. The owner/operator of a utility waste landfill shall maintain records and monitoring data as specified by the department and file appropriate documents with the county recorder(s) of deeds.*

*(B) Satisfactory Compliance—Design. Plans shall prescribe methods to be used in maintaining records and monitoring the environmental impact of the utility waste landfill. Information on recording and monitoring requirements may be obtained from the department.*

*(C) Satisfactory Compliance—Operations.*

*1. Records shall be maintained at the facility site. Records five (5) years old or older may be stored at an alternate site if approved by the department; such stored records must be made available at the landfill upon request of department personnel. Records must cover at least the following:*

*A. Major operational problems, complaints or difficulties;*

*B. Any demonstration, certification, finding, monitoring, testing or analytical data required under sections (4) and (9) of this rule;*

*C. Dust and litter control efforts;*

*D. Quantitative measurements of the waste handled and an estimate of the air space left at the facility. Every two (2) years after the date of the permit issuance and within sixty (60) days of the anniversary date of the permit issuance, the owner/operator shall submit to the department two (2) copies of a topographic map, prepared under the direction of a land surveyor or by aerial photography, showing the current horizontal and vertical boundaries of waste in the utility waste landfill and the boundaries of the utility waste landfill. Maps prepared by aerial photography shall meet the current National Map Accuracy Standards for Photogrammetry as indicated in United States Bureau of the Budget "Circular A-16 Exhibit C," dated October 10, 1958;*

*E. Closure and post-closure care plans and any monitoring, testing or analytical data as required under 10 CSR 80-2.030(4)(A);*

*F. Any cost estimates and financial assurance documentation required under 10 CSR 80-2.030(4);*

*G. Inspection records and training procedures as required under subsection (3)(B) of this rule;*

*H. Records associated with corrective measures as required under section (10) of this rule; and*

*I. The landfill operator shall keep a detailed report of the origin of all waste received. Effective January 1, 1998, on or before January 31 of each calendar year and annually thereafter each utility waste landfill shall submit a report to the department specifying the amount of utility waste received for disposal from states other than Missouri.*

*2. Upon closing of the utility waste landfill, the existence of the utility waste landfill shall be recorded with the recorder(s) of deeds in the county(ies) where the utility waste landfill is located. The owner/operator may request permission from the department to remove the notation from the deed if all wastes are removed from the facility.*

*A. A survey and plat meeting the requirements of the current Minimum Standards of Property Boundary Survey 10 CSR 30-2.010 and detailed description of the utility waste landfill shall be prepared by a land surveyor. The survey plat and detailed description, at a minimum, shall contain the following information:*

*(I) The name of the property owner as it appears on the property deed;*

*(II) The detailed description of the property;*

*(III) The general types and location of the wastes and the depth(s) of fill within the property; and*

*(IV) The location of any leachate control or water monitoring systems which shall be maintained after closure and the length of time that these systems are to be maintained.*

*B. The owner/operator shall obtain approval from the department of the survey plat and detailed description prior to filing with the county recorder of deeds. Filing the plat and detailed description shall be accomplished within thirty (30) days of departmental approval. Two (2) copies of the properly recorded plat and detailed description showing the recorder of deeds' seal or stamp, the book and page numbers and the date of filing shall be submitted to the department within thirty (30) days of filing.*

*C. Owners of all proposed utility waste landfills as a part of closure of the solid waste disposal area shall—*

*(I) Execute an easement with the department, which allows the department, its agents or its contractors to enter the premises to complete work specified in the closure plan; and*

*(II) Submit evidence to the department that a notice and covenant running with the land has been recorded with the recorder of deeds in the county where the utility waste landfill is located. The notice and covenant shall specify the following:*

*(a) That the property has been permitted as a utility waste landfill; and*

*(b) That use of the land in any manner which interferes with closure plans, and post-closure plans filed with the department, is prohibited.*

*Appendix I—Constituents for Detection Monitoring*

*Arsenic (As, µg/l)*
*Aluminum (Al, µg/l)*
*Antimony (Sb, µg/l)*
*Barium (Ba, µg/l)*
*Beryllium (Be, mg/l)*
*Boron (B, µg/l)*
*Cadmium (Cd, µg/l)*
*Calcium (Ca, mg/l)*
*Chemical Oxygen Demand (COD,mg/l)*
*Chloride (Cl, mg/l)*
*Chromium (Cr, µg/l)*
*Cobalt (Co, µg/l)*

*Copper (Cu, µg/l)*
*Fluoride (Fl, µmg/l)*
*Hardness (calculated, mg/l)*
*Iron (Fe, µg/l)*
*Lead (Pb, µg/l)*
*Magnesium (Mg, mg/l)*
*Manganese (Mn, µg/l)*
*Mercury (Hg, µg/l)*
*Nickel (Ni, mg/l)*
*pH (units)*
*Selenium (Se, µg/l)*
*Silver (Ag, µg/l))*
*Sodium (Na, mg/l)*
*Specific Conductance (Conductivity at 25°C, mho/cm)*
*Sulfate (SO, mg/l)*
*Thallium (Tl, µg/l)*
*Total Dissolved Solids (TDS, mg/l)*
*Total Organic Carbon (TOC, mg/l)*
*Total Organic Halogens (TOX, mg/l)*
*Zinc (Zn, µg/l).]*

***PURPOSE: This rule pertains to the design, construction, and operation of utility waste and coal combustion residuals (CCR) landfills. The requirements of this rule ensure the operation of utility waste and CCR landfills have no adverse effects on human health or the environment.***

***PUBLISHER'S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.***

**(1) General Provisions. This rule applies to new utility waste and CCR landfills and those existing landfills that did not certify and receive department approval of final closure prior to the effective date of this rule. Applicable provisions contained in 10 CSR 80-2 also apply. In the event of a conflict between 10 CSR 80-2 and this rule, this rule shall prevail.**

**(A) If standards or techniques other than those listed in this rule are used, it is the obligation of the utility waste or CCR landfill owner/operator to demonstrate to the department in advance that the standards or techniques to be employed will be at least as protective as the criteria in this rule. Procedures for the standards or techniques shall be submitted to the department in writing and approved by the department in writing prior to being employed. Notwithstanding any other provision of these rules, when it is found necessary, the department may require changes in design and/or operation as the condition warrants.**

**(B) Existing utility waste and CCR landfills that do not meet the performance standards of paragraph (4)(B)6., must cease placing CCR and submit closure plans per regulation 10 CSR 80-2.030 and sections (19) and (20) of this rule and initiate closure within six (6) months of the effective date of this rule. Closure schedules shall be approved by the department and shall include as part of the closure plan, site-specific information, factors, and considerations that would support any time extension requested. Until closure is achieved, these utility waste and CCR landfills shall continue to operate in compliance with this rule.**

**(C) The standards set forth in ASTM, ASTM method D422-63(2007), 2007, ASTM Test D2487-11, 2011, ASTM D-5084-16, 2016, ASTM D1140-17, 2017, and ASTM method D4318-17, 2017, as published by ASTM International, West Conshohocken, PA 19428, are incorporated by reference. This rule does not incorporate any subsequent amendments or additions.**

**(2) Solid Waste Accepted. Fly ash, bottom ash, boiler slag or other slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels; coal residuals; clean fill; and department approved solidification additives used during closure of a utility waste or CCR landfill may be accepted.**

**(3) Sluicing. Sluicing of waste for transport to utility waste or CCR landfills shall be allowed only so long as the hydraulic head on top of the landfill liner can be maintained at less than one foot (1') of head, and the collected leachate and runoff meet the Missouri Clean Water Law and corresponding rules.**

**(4) Site Selection.**

**(A) Site selection and utilization shall include a study and evaluation of geologic and hydrologic conditions and soils at the proposed utility waste or CCR landfill and an evaluation of the environmental effect upon the projected use of the completed utility waste or CCR landfill. Applications for utility waste or CCR landfill construction permits received on or after the effective date of this rule shall document compliance with all applicable siting restriction requirements contained in paragraphs (4)(B)1. through 6.**

**(B) Location Restrictions.**

**1. The owner/operator of a proposed utility waste or CCR landfill, located in one hundred- (100-) year floodplains shall demonstrate to the department that the utility waste or CCR landfill will not restrict the flow of the one hundred- (100-) year flood, reduce the temporary water storage capacity of the floodplain, or result in release of waste or leachate so as to pose a hazard to public health or the environment.**

**2. Placement above the uppermost aquifer. Landfills permitted after October 19, 2015, including lateral expansions, must be constructed with a base that is located no less than one and fifty-two hundredths meters (1.52m) (five feet (5')) above the upper limit of the uppermost aquifer, or must demonstrate that there will not be an intermittent, recurring, or sustained hydraulic connection between any portion of the base of the utility waste or CCR landfill and the uppermost aquifer due to normal fluctuations in groundwater elevations (including the seasonal high water table).**

**3. Wetlands. Utility waste or CCR landfills shall not be located in wetlands, unless the owner/operator can make the following demonstrations to the department:**

**A. The presumption that a practicable alternative to the proposed landfill is available which does not involve wetlands is clearly rebutted;**

**B. The construction and operation of the utility waste or CCR landfill will not:**

**(I) Cause or contribute to violations of any applicable state water quality standard;**

**(II) Violate any applicable toxic effluent standard or prohibition under Section 307 of the federal Clean Water Act by the U.S. Environmental Protection Agency;**

**(III) Violate any requirement under the Marine Protection, Research, and Sanctuaries Act of 1972 for the protection of a marine sanctuary;**

**C. The utility waste or CCR landfill will not cause or contribute to significant degradation of wetlands. The owner/operator shall demonstrate the integrity of the utility waste or CCR landfill and its ability to protect ecological resources by addressing the following factors:**

**(I) Erosion, stability, and migration potential of native wetland soils, muds, and deposits used to support the landfill;**

**(II) Erosion, stability, and migration potential of**

**dredged and fill materials used to support the landfill;**

**(III) The volume and chemical nature of the waste disposed of in the landfill;**

**(IV) Impacts on fish, wildlife, and other aquatic resources and their habitat from potential release of waste from the landfill;**

**(V) The potential effects of contamination of the wetland and the resulting impacts on the environment; and**

**(VI) Any additional factors, as necessary, to demonstrate that ecological resources in the wetland are sufficiently protected;**

**D. Steps have been taken to attempt to achieve no net loss of wetlands (as defined by acreage and function) by first avoiding impacts to wetlands to the maximum extent practicable as required by subparagraph (4)(B)3.A., then minimizing unavoidable impacts to the maximum extent practicable, and finally offsetting remaining unavoidable wetland impacts through all appropriate and practicable compensatory mitigation actions (for example, restoration of existing degraded wetlands or creation of man-made wetlands); and**

**E. The requirements of paragraph (4)(B)3. may be satisfied by the owner/operator obtaining a United States Army Corps of Engineers permit for construction in a wetland or by demonstrating that the wetland is not regulated by the United States Army Corps of Engineers or other appropriate agency.**

**4. Fault areas. Utility waste or CCR landfills located in the seismic impact zone shall not be located within two hundred feet (200') of a fault that has had displacement in Holocene time unless that owner/operator demonstrates to the department that an alternative setback distance of less than two hundred feet (200') will prevent damage to the structural integrity of the landfill and will be protective of human health and the environment.**

**5. Seismic impact zones. Utility waste and CCR landfills must not be located in seismic impact zones unless the owner/operator demonstrates that all structural components including liners, leachate collection and removal systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site.**

**6. Unstable areas. The owner/operator of a utility waste or CCR landfills located in an unstable area shall demonstrate to the department that the utility waste or CCR landfill's design ensures that the integrity of the structural components of the utility waste or CCR landfill will not be disrupted. The owner/operator shall consider the following factors, at a minimum, when determining whether an area is unstable:**

**A. On-site or local rock or soil conditions that may result in failure or significant differential settling;**

**B. On-site or local geologic or geomorphologic features; and**

**C. On-site or local man-made features or events (both surface and subsurface).**

**7. Endangered species. Utility waste or CCR landfills shall not:**

**A. Cause or contribute to the taking of any endangered or threatened species of plants, fish, or wildlife listed in Section 4 of the Endangered Species Act; or**

**B. Result in the direct or indirect alteration of critical habitat which appreciably diminishes the likelihood of the survival and recovery of threatened or endangered species using that habitat of endangered or threatened species as identified in 50 CFR part 17.**

**8. Surface water. CCR landfills shall operate in accordance with the Missouri Clean Water Law, corresponding rules, and permits and shall not:**

**A. Cause a discharge of pollutants into waters of the United States that is in violation of the requirements of the National Pollutant Discharge Elimination System (NPDES) under Section 402 by the U.S. Environmental Protection Agency;**

**B. Cause a discharge of dredged material or fill material to waters of the United States that is in violation of the requirements under Section 404; and**

**C. Cause non-point source pollution of waters of the United States that violates applicable legal requirements implementing an area-wide or statewide water quality management plan that has been approved by the Administrator under Section 208.**

**9. An owner/operator of a CCR landfill may submit to the department for review and approval alternative location restrictions or requirements other than those listed in paragraphs (4)(B)4., 5., and 6. if the owner/operator establishes through technical analysis and an engineering demonstration that adverse effects are not reasonably probable given the design, construction, and/or operation of the utility waste or CCR landfill in such location.**

**(5) Plans for new utility waste or CCR landfills shall include:**

**(A) A map showing initial and proposed topographies at contour intervals of five feet (5') or less having a scale of not less than one inch (1") equal to one hundred feet (100'). If the entire site cannot be illustrated on one (1) plan sheet, additional plan sheets should be included with appropriate horizontal and vertical scales in addition to the full site map;**

**(B) A map having a scale of not less than one inch (1") equals four hundred feet (400') identifying the land use and zoning within one-fourth (1/4) mile of the utility waste or CCR landfill including location of all residences, buildings, wells, water courses, springs, lakes, rock outcroppings, caves, sinkholes, and soil or rock borings. All electric, gas, water, sewer, and other utility easements or lines that are located on, under, or over the utility waste or CCR landfill shall be shown on the map;**

**(C) A description of the projected use of the closed utility waste or CCR landfill. In addition to maintenance programs and provisions, where necessary for monitoring and controlling leachate, the plans shall specify appropriate design, construction, and operating provisions for the utility waste or CCR landfill to complement the projected future use;**

**(D) An evaluation of the characteristics and quantity of available on-site soil with respect to its suitability for utility waste or CCR landfilling operations. The engineering properties and quantity estimates of the on-site soil shall be discussed and shall include:**

**1. Texture. Sieve and hydrometer analyses shall be performed to determine grain size distribution of representative soil samples. Texture may be determined by using the procedures described in ASTM method D422-63(2007) (ASTM International, 100 Barr Harbor, West Conshohocken, PA 19428 Publication date 2007);**

**2. Plasticity. The liquid limit, plastic limit and plasticity index of representative soil samples shall be determined. Plasticity may be determined by using the procedures described in ASTM method D4318-17 (ASTM International 100 Barr Harbor, West Conshohocken, PA 19428, Publication date 2017);**

**3. Hydraulic conductivity. Laboratory hydraulic conductivity tests shall be performed upon undisturbed representative soil samples using a flexible wall permeameter (ASTM D-5084-16 ASTM International, 100 Barr Harbor, West Conshohocken, PA 19428 Publication date 2016). If an aquifer is found to be laterally continuous across the anticipated limit of the proposed landfill, the hydraulic conductivity of each significant continuous geologic unit must be determined. Examples of accepted field tests are in situ slug or pump tests, which isolate the geologic unit of interest; and**

**4. Areal extent and depth. The areal extent and depth of soil suitable for landfill construction shall be determined, clearly describing variations in soil depth; and**

**(E) A demonstration by the owner/operator of a proposed utility waste or CCR landfill of how adverse geologic and hydrologic conditions may be altered or compensated for via surface water drainage diversion, underdrains, sumps, and other structural components. All alterations of the site shall be detailed in the plans. Precipitation, evapotranspiration and climatological conditions shall be considered in site selection and design.**

**(6) Design.**

**(A) Plans, addendums, as-built drawings, or other documents which describe the design, construction, operation, or closure of a utility waste or CCR landfill or which request a design modification for the utility waste or CCR landfill shall:**

**1. Be prepared, sealed, and signed by the professional engineer and submitted to the department for review and approval;**

**2. Contain a minimum of a one hundred foot- (100'-) buffer zone between the utility waste or CCR landfill operations and any property line(s) or any right(s)-of-way of adjoining road(s) when the property line(s) is inside the right(s)-of-way to provide for assessment and/or remedial actions;**

**3. Consider precipitation, evapotranspiration, and climatological conditions in site selection and design;**

**4. Include all computer models used in the design and list the limitations and assumptions of each model;**

**5. Include stability analyses for all stages of construction, as well as all liner and leachate system components, and on all final cover system components, include an evaluation of the effect of waste settlement on the final cover system components, side slope liner system components, and surface water management system components;**

**6. Perform settlement and bearing capacity analyses on the in-place foundation material beneath the disposal area;**

**7. Analyze the effect of foundation material settlement on the liner and leachate collection systems;**

**8. Analyze leachate collection pipe material and drainage media to demonstrate that these components possess structural strength to support maximum loads imposed by overlying waste materials and equipment; and**

**9. Include phase development drawings.**

**(B) Liner system requirement. A composite liner shall be required at all utility waste or CCR landfills applying for a construction permit after the effective date of this rule that includes:**

**1. A composite liner must consist of two (2) components: the upper component consisting of, at a minimum, a thirty- (30-) mil geomembrane liner (GM), and the lower component consisting of at least a two-foot (2') layer of compacted soil with a hydraulic conductivity of no more than $1 \times 10^{-7}$ centimeters per second (cm/sec). GM components consisting of high density polyethylene (HDPE) must be at least sixty- (60-) mil thick. The GM or upper liner component must be installed in direct and uniform contact with the compacted soil or lower liner component. The compacted soil liner component at a minimum shall be:**

**A. Constructed of six to eight inch (6 - 8") lifts;**

**B. Compacted to ninety-five percent (95%) of standard Proctor density with the moisture content between optimum moisture content and four percent (4%) above the optimum moisture content, or within other ranges of density and moisture such that are shown to provide for the liner to have a hydraulic conductivity no more than $1 \times 10^{-7}$ cm/sec;**

**C. Protected from the adverse effects of desiccation or freeze/thaw cycles after construction, but prior to placement of waste;**

**D. Soils used for this purpose shall meet the following minimum specifications:**

**(I) Be classified under the Unified Soil Classification Systems as CL, CH, or SC (ASTM Test D2487-11 ASTM International, 100 Barr Harbor, West Conshohocken, PA 19428 Publication date 2011);**

**(II) Allow more than thirty percent (30%) passage through a No. 200 sieve (ASTM Test D1140-17 ASTM International, 100 Barr Harbor, West Conshohocken, PA 19428, Publication date 2017);**

**(III) Have a liquid limit equal to or greater than twenty (20) (ASTM Test D4318-17 ASTM International, 100 Barr Harbor, West Conshohocken, PA 19428 Publication date 2017);**

**(IV) Have a plasticity index equal to or greater than ten (10) (ASTM Test D4318-17 ASTM International, 100 Barr Harbor, West Conshohocken, PA 19428 Publication date 2017); and**

**(V) Have a minimum bottom slope in any direction of flow of at least one percent (1%); and**

**E. Constructed of materials that—**

**(I) Have appropriate chemical properties and sufficient strength and thickness to prevent failure due to: pressure gradients (including static head and external hydrogeologic forces), physical contact with the CCR or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;**

**(II) Provide appropriate shear resistance of the upper and lower component interface to prevent sliding of the upper component including on slopes;**

**(III) Are placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and**

**(IV) Are installed to cover all surrounding earth likely to be in contact with the CCR or leachate;**

**2. A test pad shall be constructed at the site and tested to verify that the proposed soils, construction, and quality assurance/quality control (QA/QC) procedures are adequate to ensure that the soil component of the composite liner system will meet the requirements listed above.**

**A. Construction and QA/QC procedures to be used during test pad construction shall be described in detail in the approved engineering report, and shall be identical to those proposed for liner construction with the following additions:**

**(I) At least two (2) laboratory hydraulic conductivity tests shall be performed on undisturbed samples of the completed test pad;**

**(II) At least one (1) in-situ hydraulic conductivity test (i.e. Boutwell) shall be performed on the completed test pad; and**

**(III) At least two (2) test pits shall be excavated into the completed test pad to observe inter-lift bonding.**

**B. If test pad construction and testing shows that the proposed methods are not sufficient to meet the requirements of this rule, a new test pad shall be constructed using revised procedures approved by the department.**

**C. For phased construction, only one (1) test pad will be required for a particular soil source and type and equipment type.**

**D. A final report shall be submitted to the department, which describes in detail the construction and QA/QC procedures, which were used to achieve satisfactory test pad performance.**

**(I) The report must be approved by the department prior to beginning construction of any portion of the composite liner system in the disposal area.**

**(II) The report shall serve as guidance for construction of the soil component of the composite liner system.**

**E. The requirement for a test pad may be waived provided the applicant can demonstrate to the department's satisfaction the construction and QA/QC procedures are identical to those described in the approved engineering report and will result in construction of a liner which meets the requirements of this rule, and the soils proposed for liner construction meet the following minimum specifications:**

**(I) Have a plasticity index greater than fifteen (15) and less than thirty (30) (ASTM test D4318-17 ASTM International, 100 Barr Harbor, West Conshohocken, PA 19428 Publication date 2017);**

**(II) Allow more than fifty percent (50%) passage through a number two hundred (200) sieve (ASTM D1140-17 ASTM International, 100 Barr Harbor, West Conshohocken, PA 19428, Publication date 2017); and**

**(III) Have less than ten percent (10%) by weight particle sizes greater than two (2) millimeters.**

**(C) Alternative composite liners. If the owner/operator elects to install an alternative composite liner, all of the following requirements must be met:**

**1. An alternative composite liner must consist of two (2) components: the upper component consisting of, at a minimum, a thirty- (30-) mil GM, and a lower component, that is not a geomembrane, with a liquid flow rate no greater than the liquid flow rate of two feet (2') of compacted soil with a hydraulic conductivity of no more than $1 \times 10^{-7}$ cm/sec. GM components consisting of HDPE must be at least sixty- (60-) mil thick. If the lower component of the alternative liner is compacted soil, the GM must be installed in direct and uniform contact with the compacted soil.**

**2. The owner/operator must obtain certification from a professional engineer that the liquid flow rate through the lower component of the alternative composite liner is no greater than the liquid flow rate through two feet (2') of compacted soil with a hydraulic conductivity of $1 \times 10^{-7}$ cm/sec. The hydraulic conductivity for the two feet (2') of compacted soil used in the comparison shall be no greater than $1 \times 10^{-7}$ cm/sec. The hydraulic conductivity of any alternative to the two feet (2') of compacted soil must be determined using recognized and generally accepted methods. The liquid flow rate comparison must be made using Equation 1 of this section, which is derived from Darcy's Law for gravity flow through porous media.**

(Eq. 1) $$\frac{Q}{A} = q = k\left(\frac{h}{t} + 1\right)$$

**Where—**

**Q = flow rate (cubic centimeters/second);**

**A = surface area of the liner (squared centimeters);**

**q = flow rate per unit area (cubic centimeters/second/squared centimeter);**

**k = hydraulic conductivity of the liner (centimeters/second);**

**h = hydraulic head above the liner (centimeters); and**

**t = thickness of the liner (centimeters); and**

**3. The alternative composite liner must meet the performance requirements specified in parts (6)(B)1.E.(I) through (IV).**

**(D) The leachate collection and removal system must be designed, constructed, operated, and maintained to collect and remove leachate from the utility waste or CCR landfill during the active life and post-closure care period. The leachate collection and removal system must be—**

**1. Designed and operated to maintain less than a thirty (30)-centimeter (one foot (1')) depth of leachate over the composite liner or alternative composite liner;**

**2. Constructed of materials that are chemically resistant to the CCR and any non-CCR waste managed in the utility waste or CCR landfill and the leachate expected to be generated, and of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying waste, waste cover materials, and equipment used at the utility waste or CCR landfill;**

**3. Designed and operated to minimize clogging during the active life and post-closure care period;**

**4. Leachate flow quantities shall be estimated and the method(s) of leachate management shall be outlined in the application submittal;**

**5. Leachate storage facilities shall comply with all currently applicable requirements of the Missouri Clean Water Law and corresponding rules. Where a leachate treatment system is designed to have a discharge to the waters of the state, any required discharge permit(s) shall be obtained from the department in accordance with requirements of the Missouri Clean Water Law and corresponding rules; and**

**6. Minimum design criteria for leachate collection systems shall include the following:**

**A. Ponds and/or tanks of sufficient capacity to store, equalize flow to disposal systems, and allow system/operating flexibility;**

**B. Collection systems designed and operated so that any leachate formed will flow by gravity into collection areas from which the leachate can be removed, treated, and disposed;**

**C. Leachate management by recirculation within the permitted fill area shall be conducted in accordance with an approved engineering method;**

**D. Any leachate collection system open to the atmosphere must be designed to prevent discharge during a twenty-four- (24-) hour, twenty-five- (25-) year storm event. Plans shall include the calculations detailing the design; and**

**E. A method of leachate management in the application. A secondary or "backup" method of leachate disposal will be required unless the applicant can demonstrate that a secondary method will not be necessary.**

**(7) Quality Assurance/Quality Control (QA/QC). The construction, operation, and closure of the utility waste or CCR landfill shall include QA/QC measures to ensure compliance with approved plans and all applicable federal, state, and local requirements. The permittee shall be responsible for ensuring that the QA/QC supervision is conducted by a qualified professional.**

**(A) Plans shall include a detailed description of the QA/QC testing procedures that will be used for every major phase of construction. The description must include at a minimum, the frequency of inspections, field testing, laboratory testing, equipment to be utilized, the limits for test failure, a description of the procedures to be used upon test failure, and a detailed procedure for the reporting and recording of QA/QC activities and testing results.**

**(B) For the following components:**

**1. Leachate collection system. Reports shall be prepared or approved by the professional engineer transmitting the results of the QA/QC procedures and stating that the leachate collection system was constructed according to the approved design or describing any deviations from the approved design; and**

**2. Liner. The liner specified by section (6) shall be constructed in accordance with the approved design specifications. The QA/QC procedures shall include:**

**A. Evidence that the liner material(s) utilized meet the minimum design specifications;**

**B. Evidence that field construction techniques are resulting in the minimum design specifications (for example, soil density tests);**

**C. Evidence that the liner construction is proceeding as designed through regular verification using a predetermined system of horizontal and vertical survey controls; and**

**D. Oversight of the liner construction and QA/QC procedures by a professional engineer. This shall include reports prepared, or approved, by the professional engineer transmitting the results of the QA/QC procedures and stating that the liner was constructed according to design or describing any deviations from the design;**

**3. All QA/QC reports shall be reviewed and approved by a**

**professional engineer.**

**(C) At a minimum QA/QC testing shall include:**

**1. Testing of each lift of the soil component of the final cover and landfill liner for field density and field moisture once per every ten thousand square feet (10,000ft$^2$) and providing relatively uniform coverage over the landfill surface;**

**2. Laboratory hydraulic conductivity testing of the soil used for liner construction once for every five thousand cubic yards (5,000yd$^3$) of liner constructed;**

**3. Continuous visual classification of borrow soil during landfill construction by qualified QA/QC inspector(s) or certifying professional engineer;**

**4. Measuring the elevations of the final cover and the landfill liner on a maximum spacing of one hundred foot (100') centers and at one hundred foot (100') intervals along each line where a break in slope occurs.**

**A. Landfill liner. Measuring the elevations of the top and bottom of the landfill liner and leachate collection system.**

**B. Final cover. Measuring the elevations of the top and bottom of the landfill cover includes:**

**(I) The compacted clay layer; and**

**(II) The soil layer supporting vegetative growth;**

**5. For a geomembrane includes:**

**A. Nondestructive testing of all seams of the geomembrane in the landfill liner; and**

**B. Random destructive testing of the seams of the geomembrane liner in the landfill liner on an average frequency of at least one (1) every five hundred (500) linear feet of seams; and**

**6. All testing shall be performed under the direction of qualified QA/QC inspectors for every major phase of construction.**

**(8) Survey Control. Benchmarks, horizontal controls, and boundary markers shall be established and maintained by a registered land surveyor to check and mark the location and elevations of the utility waste or CCR landfill ensuring compliance with design plans, phasing plans, and applicable conditions within the approved construction permit. At a minimum, a survey of the entire permitted acreage shall be conducted in accordance with the current Missouri Standards for Property Boundary Surveys, 2 CSR 90-60, and identify the permanent monument used as a benchmark. All site information must be reported in the State Plane Coordinate System.**

**(9) Run-on and Run-off Controls. All Water Protection Program permits and approvals necessary to comply with requirements of the Missouri Clean Water Law and corresponding rules shall be obtained from the department.**

**(A) The owner/operator of an existing or new utility waste or CCR landfill or any lateral expansion must design, construct, operate, and maintain—**

**1. A run-on control system to prevent flow onto the active portion of the landfill during the peak discharge from a twenty-four- (24-) hour, twenty-five- (25-) year storm; and**

**2. On-site drainage, collection, and control structures and channels shall be designed for all stages of development to accommodate at a minimum the stormwater volume from a twenty-four- (24-) hour, twenty-five- (25-) year storm. The engineering calculations and assumptions shall be included and explained in the engineering report submitted to the department.**

**(B) The quantity of water coming in contact with solid waste shall be minimized by the daily operational practices. Water which comes in contact with the waste shall be managed as leachate in accordance with the approved plans. Stormwater runoff from the utility waste or CCR landfill shall be controlled on site and not be allowed to discharge off the utility waste or CCR landfill property or discharge into the waters of the state, except in accordance with the approved plans and the Missouri Clean Water Law and corresponding rules.**

**(10) Groundwater Monitoring.**

**(A) The owner/operator of a utility waste or CCR landfill shall implement a groundwater monitoring program capable of determining the impact on the quality of groundwater underlying the utility waste or CCR landfill. The downgradient monitoring system must be installed at the relevant point of compliance specified by the department. When physical obstacles preclude installation of groundwater monitoring wells at the relevant point of compliance, the downgradient monitoring system may be installed at the closest practicable distance hydraulically downgradient specified by the department that ensures detection of groundwater contamination in the uppermost aquifer.**

**1. All utility waste or CCR landfills permitted after the effective date of this rule must be in compliance with all groundwater monitoring requirements of this section.**

**2. All utility waste or CCR landfills permitted prior to the effective date of this rule, but not officially closed by the department as of October 19, 2015, must comply with this section.**

**3. The owner/operator of a utility waste or CCR landfill shall establish the potential for migration of fluid generated by the utility waste or CCR landfill into the groundwater by an evaluation of—**

**A. A water balance of precipitation, evapotranspiration, runoff, and infiltration; and**

**B. At a minimum, the following characteristics:**

**(I) Geologic materials;**

**(II) Description of soil and bedrock to a depth adequate to allow evaluation of water quality protection provided by the soil and bedrock;**

**(III) Groundwater elevation;**

**(IV) Proposed separation between the lowest point of the lowest cell and the maximum water table elevation;**

**(V) Proximity of the utility waste or CCR landfill to water supply wells or surface water;**

**(VI) Rate and direction of groundwater flow; and**

**(VI) Current and projected use of water resources in the potential zone of influence of the utility waste or CCR landfill.**

**4. Groundwater monitoring wells shall be installed based upon site-specific technical information that considers the following when determining the number, spacing, and depths of monitoring systems:**

**A. Aquifer thickness, groundwater flow rate, groundwater flow direction including seasonal and temporal fluctuations in groundwater flow; and**

**B. Saturated and unsaturated geologic units and fill materials overlying the uppermost aquifer materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer; including, but not limited to, thicknesses, stratigraphy, lithology, hydraulic conductivities, and porosities.**

**5. Groundwater monitoring well locations shall be based on site-specific technical information and be capable of yielding groundwater samples for analysis, effectively monitor the site, and shall consist of at least one (1) well installed hydraulically upgradient; that is, in the direction of increasing static head from the utility waste or CCR landfill and at least three (3) wells installed hydraulically downgradient; that is, in the direction of decreasing hydraulic head. The numbers, locations, and depths shall be based on site-specific technical information and be sufficient to yield groundwater samples that—**

**A. Represents background water quality in the groundwater upgradient of the utility waste or CCR landfill;**

**B. Detect any significant amounts of fluids generated by the utility waste or CCR landfill that migrate from the utility waste or CCR landfill to the groundwater; and**

**C. Monitor all saturated zones down to and including the uppermost aquifer.**

**6. All monitoring wells shall be—**

**A. Designed, constructed, developed, and decommissioned in accordance with 10 CSR 23-4;**

**B. Designed and installed under the observation and supervision of a qualified groundwater scientist, who certifies installation, and then approved by the department; and**

**C. Operational prior to the acceptance of wastes, unless other arrangements are approved by the department.**

**(B) Sampling and Reporting.**

**1. Each groundwater monitoring program must include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide an accurate representation of groundwater quality at monitoring wells installed in compliance with this section. The owner/operator must submit the sampling and analysis program to the department for approval. The program must include procedures and techniques for:**

**A. Monitoring well maintenance;**

**B. Monitoring well redevelopment;**

**C. Monitoring well depth measurement and hydraulic levels;**

**D. Monitoring well purging and sampling utilizing dedicated equipment;**

**E. Equipment calibration;**

**F. Decontamination and field blanks;**

**G. Sample collection;**

**H. Sample preservation;**

**I. Sample labeling;**

**J. Sample handling;**

**K. Field measurements;**

**L. Field documentation;**

**M. Chain of custody control;**

**N. Sample shipment;**

**O. Analytical procedures;**

**P. QA/QC control—field and laboratory; and**

**Q. Statistical testing strategy for each parameter's concentrations.**

**2. Each groundwater monitoring program shall include sampling and analytical methods that are appropriate for groundwater sampling and that accurately measure hazardous constituents and other monitoring parameters in groundwater samples. Analysis shall be performed on unfiltered samples.**

**3. The owner/operator shall determine the rate and direction of groundwater flow each time groundwater is sampled. Groundwater elevations in wells that monitor the same utility waste or CCR landfill shall be measured within a period of time short enough to avoid temporal variations in groundwater flow, which could preclude an accurate determination of groundwater flow rate and direction.**

**4. Each groundwater monitoring program shall include: a map, aerial image, or diagram showing the utility waste or CCR landfill and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers that are part of the groundwater monitoring program for the utility waste or CCR landfill.**

**5. Suspension of groundwater monitoring requirements.**

**A. The department may suspend or modify in whole or in part for up to ten (10) years the groundwater monitoring requirements for a utility waste or CCR landfill if the owner/operator provides written documentation that there is no potential for risk to human health or the environment or migration of the constituents listed in Appendices I and II of this rule during the active life of the utility waste or CCR landfill and the post-closure care period. In making this decision to suspend groundwater monitoring requirements in whole or in part and in making remedial decisions, the department may consider the impact of activity and use limitations that have been placed on the property and any affected off-site area. This demonstration must be certified by a qualified professional engineer and approved by the department, and must be based upon:**

**(I) Site-specific field collected measurements, sampling, and analysis of physical, chemical, and biological processes affecting contaminant fate and transport; and**

**(II) Contaminant fate and transport predictions that maximize contaminant migration and consider impacts on potential receptors.**

**(C) Background Monitoring. The owner/operator shall establish background groundwater quality for each of the monitoring parameters or constituents required in Appendix I and Appendix II. To establish background, a minimum of eight (8) samples of statistically independent sample data shall be obtained and analyzed from all monitoring wells. Additional background samples may be required based upon the statistical methodology used.**

**(D) Detection Monitoring.**

**1. The owner/operator shall obtain and analyze water samples from the groundwater monitoring wells during the months of May and November of each calendar year for Appendix I constituents unless an alternative schedule is approved by the department.**

**2. The water level in each well shall be measured at the time the sample is taken.**

**3. The sample results must be submitted electronically in a format specified by the department, and any results of statistical analysis determining statistically significant increases (SSI) for any parameter shall be submitted to the department in one (1) report within ninety (90) days of when samples are collected, unless the department approves an alternative schedule.**

**4. In the case of all detection monitoring requirements previously listed, the department may specify an appropriate alternative frequency for repeated sampling and analysis during the active life of the utility waste or CCR landfill including during the closure and post-closure periods. The alternative frequency during the active life including closure shall be no less than annual. The alternative frequency shall be based on consideration of the following factors:**

**A. Lithology of the aquifer and unsaturated zone;**

**B. Hydraulic conductivity of the aquifer and unsaturated zone;**

**C. Groundwater flow rates;**

**D. Minimum distance between the upgradient edge of the CCR surface impoundment and the downgradient monitoring well screen (minimum distance of travel); and**

**E. Resource value of the aquifer.**

**5. If the owner/operator determines, pursuant to subsection (10)(E), that there is a SSI over background for one or more of the constituents listed in Appendix I, the owner/operator:**

**A. Must, within fourteen (14) days of this finding, notify the department indicating which constituents have shown statistically significant changes from background levels; and**

**B. Must establish an assessment monitoring program meeting the requirements of subsection (10)(F) within ninety (90) days except as provided for in paragraph (10)(D)6.**

**6. The owner/operator may demonstrate that a source other than the CCR surface impoundment caused the contamination or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. A report documenting this demonstration must be certified by a qualified groundwater scientist and submitted to the department for review and approval. If a successful demonstration is made and documented, the owner/operator may continue detection monitoring as specified in this subsection. If, after ninety (90) days, a successful demonstration is not made, the owner/operator must initiate an assessment monitoring program as specified in subsection (10)(F).**

**(E) Statistical Method. The owner/operator shall specify one**

**(1) or more statistical method(s) to be used in evaluating groundwater monitoring data for each monitoring constituent.**

**1. The statistical method used to evaluate groundwater monitoring data shall be appropriate for the distribution of the concentration data for the chemical parameters or hazardous constituents and approved by the department. If the distribution of the concentration data for the chemical parameters or hazardous constituents is shown by the owner/operator to be inappropriate for a normal data distribution theory test, then the data should be transformed or a distribution-free (nonparametric) theory test should be used. If the concentration data distributions for the constituents of each well differ, more than one (1) statistical method will be needed.**

**2. If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentration or a groundwater protection standard, as defined below in paragraph (10)(F)7., the test shall be done at a Type I error rate no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experiment-wide error rate for each testing period shall be no less than 0.05, however, the Type I error rate of no less than 0.01 for individual well comparisons shall be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts.**

**3. If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter values shall be protective of human health and the environment. The selection of this method shall be determined after considering the number of samples in the background database, the data distribution, and the range of the concentration values for each constituent of concern.**

**4. If a confidence interval, tolerance interval, or a prediction interval is used to evaluate groundwater monitoring data, then the level of confidence for each interval, and the percentage of the population that each interval contains, shall be protective of human health and the environment. Selection of one (1) or more of these methods shall be determined after considering the number of samples in the background database, the data distribution, and the range of the concentration values for each constituent of concern.**

**5. The statistical method shall account for data below the limit of detection with one (1) or more statistical procedures that are protective of human health and the environment. Any practical quantization limit that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.**

**6. If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.**

**(F) Response to statistical analysis/assessment monitoring.**

**1. Assessment monitoring is required whenever a SSI over background levels has been detected for one (1) or more of the constituents listed in Appendix I.**

**2. Within ninety (90) days of triggering an assessment monitoring program, and annually thereafter, the owner/operator of the utility waste or CCR landfill must sample and analyze the groundwater for all constituents listed in Appendix II of this rule. The number of samples collected and analyzed for each well during each sampling event must be consistent with subsection (10)(B), and must account for any unique characteristics of the site, but must include at least one (1) sample from each well.**

**3. The owner/operator of a utility waste or CCR landfill may submit to the department for review and approval, a demonstration for an alternative monitoring frequency for repeated sampling and analysis for constituents listed in Appendix II during the active life and the post-closure care period based on the availability of groundwater. If there is not adequate groundwater flow to sample wells semiannually, the alternative frequency shall be no less than annual. The need to vary monitoring frequency must be evaluated on a site-specific basis. The demonstration must be supported by, at a minimum, the following information:**

**A. Information documenting the need for less frequent sampling. The alternative frequency must be based on consideration of the following factors:**

**(I) Lithology of the aquifer and unsaturated zone;**

**(II) Hydraulic conductivity of the aquifer and unsaturated zone; and**

**(III) Groundwater flow rates;**

**B. Information documenting that the alternative frequency will be no less effective in ensuring that any leakage from the utility waste or CCR landfill will be discovered within a timeframe that will not materially delay the initiation of any necessary remediation measures; and**

**C. The owner/operator must obtain a certification from a professional engineer and submit it to the department for review and approval, stating that the demonstration for an alternative groundwater sampling and analysis frequency meets the requirements of this section. The owner/operator must include the demonstration providing the basis for the alternative monitoring frequency and the certification by a professional engineer in the annual groundwater monitoring and corrective action report required by section (10).**

**4. After obtaining the results from the initial and subsequent sampling events required in paragraph (10)(F)2., the owner/operator must:**

**A. Within ninety (90) days of obtaining the results, and on at least a semiannual basis thereafter, resample all wells that were installed pursuant to the requirements of section (10), conduct analyses for all constituents in Appendix I and for those constituents in Appendix II that are detected in response to subparagraph (10)(F)4.B., submit the sampling and analysis to the department for review and approval and record their concentrations in the facility operating record. The number of samples collected and analyzed for each background well and downgradient well during subsequent semiannual sampling events must be consistent with subsection (10)(D), and must account for any unique characteristics of the site, but must be at least one (1) sample from each background and downgradient well;**

**B. Establish groundwater protection standards for all constituents detected pursuant to paragraph (10)(F)2. or subparagraph (10)(F)4.A. The groundwater protection standards must be established in accordance with paragraph (10)(F)8; and**

**C. Include the recorded concentrations required by subparagraph (10)(F)8.., identify the background concentrations established under subsection (10)(C), and identify the groundwater protection standards established under subparagraph (10)(F)4.B. in the annual groundwater monitoring and corrective action report. The owner/operator must submit the annual groundwater monitoring and corrective action report to the department for review and approval.**

**5. If the concentrations of all constituents listed in Appendices I and II are shown to be at or below background values, using the statistical procedures in subsection (10)(E), for two (2) consecutive sampling events, the owner/operator may return to detection monitoring of the utility waste or CCR landfill. The owner/operator must prepare and submit a notification to the department for review and approval requesting that detection monitoring resume for the utility waste or CCR landfill. The owner/operator has completed the notification when the approved notification is placed in the facility's operating record.**

**6. If the concentrations of any constituent in Appendices I and II are above background values, but all concentrations are below the groundwater protection standard established under paragraph (10)(F)8., using the statistical procedures in subsection (10)(E), the owner/operator must continue assessment monitoring**

**in accordance with this section.**

**7. If one (1) or more constituents in Appendix II of this rule are detected at statistically significant levels above the groundwater protection standard established under paragraphs (10)(F)4. and 8. in any sampling event, the owner/operator must prepare a notification identifying the constituents in Appendix II to this rule that have exceeded the groundwater protection standard. The owner/operator has completed the notification when the notification is submitted to the department for approval and the approved notification is placed in the facility's operating record. The owner/operator of the utility waste or CCR landfill also must:**

**A. Characterize the nature and extent of the release and any relevant site conditions that may affect the remedy ultimately selected. The characterization must be sufficient to support a complete and accurate assessment of the corrective measures necessary to effectively clean up all releases from the utility waste or CCR landfill pursuant to section (11). Characterization of the release includes the following minimum measures:**

**(I) Install additional monitoring wells necessary to define the contaminant plume(s);**

**(II) Collect data on the nature and estimated quantity of material released including specific information on the constituents listed in Appendix II of this rule and the levels at which they are present in the material released;**

**(III) Install at least one (1) additional monitoring well at the facility boundary in the direction of contaminant migration and sample this well in accordance with subparagraph (10)(F)4.A.; and**

**(IV) Sample all wells in accordance with subparagraph (10)(F)4.A. to characterize the nature and extent of the release;**

**B. Notify all persons who own the land or reside on the land that directly overlies any part of the plume of contamination if contaminants have migrated off-site if indicated by sampling of wells in accordance with subparagraph (10)(F)7.A. The owner/operator has completed the notifications when they are submitted to the department for approval and the approved notification is placed in the facility's operating record;**

**C. Within ninety (90) days of finding that any of the constituents listed in Appendix II to this rule have been detected at a statistically significant level exceeding the groundwater protection standards must either—**

**(I) Initiate an assessment of corrective measures as required by subsection (11)(A); or**

**(II) Demonstrate that a source other than the utility waste or CCR landfill caused the contamination, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Any such demonstration must be supported by a report that includes the factual or evidentiary basis for any conclusions and must be certified to be accurate by a professional engineer. If a successful demonstration is made to the department, the owner/operator must continue monitoring in accordance with the assessment monitoring program pursuant to this section, and may return to detection monitoring if the constituents in Appendices I and II of this rule are at or below background as specified in paragraph (10)(F)5. The owner/operator must also include the demonstration in the annual groundwater monitoring and corrective action report submitted to the department for review and approval in addition to the certification by a professional engineer; and**

**D. If a successful demonstration has not been made at the end of the ninety (90) day period provided by part (10)(F)7.C.(II), initiate the assessment of corrective measures requirements under subsection (11)(A).**

**8. The owner/operator of the utility waste or CCR landfill must establish a groundwater protection standard for each constituent in Appendix II of this rule detected in the groundwater. The groundwater protection standard shall be—**

**A. For constituents for which a maximum contaminant level (MCL) has been established pursuant to the National Primary Drinking Water Regulations 40 CFR 141.62 (June 29, 2004) and 40 CFR 141.66 (December 7, 2000), the MCL for that constituent;**

**B. For the following constituents:**

**(I) Cobalt 6 micrograms per liter ($\mu$g/l)**

**(II) Lead 15 $\mu$g/l**

**(III) Lithium 40 $\mu$g/l**

**(IV) Molybdenum 100 $\mu$g/l; or**

**C. For constituents for which the background level is higher than the levels identified under subparagraphs (10)(F)8.A. and B., use the background concentration.**

**(11) Corrective Action. The owner/operator of a utility waste or CCR landfill that shows one (1) or more constituents listed in Appendix II of this rule being detected at levels above the groundwater protection standard as established under paragraph (10)(F)8. shall proceed with corrective action measures outlined in subsections (11)(A) through (C) below.**

**(A) Assessment of Corrective Measures.**

**1. Within ninety (90) days of finding that any of the constituents listed in Appendix II of this rule have been detected at a statistically significant level exceeding the groundwater protection standards listed under paragraphs (10)(F)4. and 8., or immediately upon detection of a release from a utility waste or CCR landfill, the owner/operator shall initiate an assessment of corrective measures to prevent further releases, to remediate any releases and to restore the affected area(s) to original conditions. This assessment of corrective measures shall be completed within ninety (90) days, unless the owner/operator demonstrates the need for additional time to complete the assessment of corrective measures due to site-specific conditions or circumstances. The owner/operator must obtain a certification from a professional engineer attesting that the demonstration is accurate. The ninety- (90-) day deadline to complete the assessment of corrective measures may be extended by the department for no longer than sixty (60) days. The owner/operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by subsection (10)(D), in addition to the certification by a professional engineer. Further, a report describing the assessment of corrective measures shall be submitted to the department for review and approval.**

**2. The owner/operator shall continue to monitor in accordance with the assessment monitoring program as specified in paragraph (10)(F)2.**

**3. The assessment shall include an analysis of the effectiveness of potential corrective measures in meeting all of the requirements and objectives of the remedy as described in this rule, addressing at least the following:**

**A. The performance, reliability, ease of implementation and potential impacts of appropriate potential remedies, including safety impacts, cross-media impacts, and control of exposure to any residual contamination;**

**B. The time required to begin and complete the remedy; and**

**C. The institutional requirements such as state or local permit requirements or other environmental or public health requirements that may substantially affect implementation of the remedy(ies).**

**4. The owner/operator must place the completed assessment of corrective measures in the facility's operating record and submit it to the department for review and approval. The assessment has been completed when it is approved by the department.**

**5. The owner/operator shall discuss the results of the corrective measures assessment at least thirty (30) days prior to the selection of remedy, in a public meeting with interested and affected parties.**

**(B) Selection of Remedy.**

**1. The department may determine that remediation of a release of a constituent listed in Appendix II from a utility waste or CCR landfill is not necessary if the owner/operator demonstrates to the satisfaction of the department that—**

**A. The groundwater is additionally contaminated by substances that have originated from a source other than a utility waste or CCR landfill and those substances are present in concentrations such that cleanup of the release from the utility waste or CCR landfill would provide no significant reduction in risk to actual or potential receptors;**

**B. The constituent(s) is present in groundwater that—**

**(I) Is not currently or reasonably expected to be a source of drinking water; and**

**(II) Is not hydraulically connected with a potential drinking water source to which the constituent(s) is migrating or likely to migrate in a concentration(s) that would exceed the groundwater protection standards established under paragraph (10)(F)8.;**

**C. Remediation of the release(s) is technically impracticable; or**

**D. Remediation results in unacceptable cross-media impacts.**

**2. Notwithstanding a determination by the department pursuant to paragraph (11)(A)1., the department may require the owner/operator to undertake source control measures or other measures (including closure if triggered) that may be necessary to eliminate or minimize further releases to the groundwater, to prevent exposure to the groundwater, or to remediate the groundwater to concentrations that are technically feasible and significantly reduce threats to human health or the environment.**

**3. Based on the results of the corrective measures assessment conducted in accordance with section (11)(A), the owner/operator must, as soon as feasible, select a remedy that, at a minimum, meets the standards listed in paragraph (11)(B)4. This requirement applies to, not in place of, any applicable standards under the Occupational Safety and Health Act. The owner/operator must prepare a semiannual report describing the progress in selecting and designing the remedy. Upon selection of a remedy, the owner/operator must prepare a final report describing the selected remedy and how it meets the standards specified in paragraph (11)(B)4. and submit this report to the department for review and approval. The owner/operator must obtain a certification from a professional engineer that the remedy selected meets the requirements of this section. The owner/operator shall submit the final report to the department within fourteen (14) days of selecting a proposed remedy. The report is complete once the report is approved by the department and the owner/operator has placed it in the operating record.**

**4. Remedies shall—**

**A. Be protective of the public health and the environment;**

**B. Attain the groundwater protection standard specified in paragraph (10)(F)8.;**

**C. Control the source(s) of releases so as to reduce or eliminate, to the maximum extent feasible, further releases of constituents listed in Appendix II of this rule into the environment that may pose a threat to human health or the environment;**

**D. Remove from the environment as much of the contaminated material that was released from the utility waste or CCR landfill as is feasible, taking into account factors such as avoiding inappropriate disturbance of sensitive ecosystems; and**

**E. Comply with standards for management of wastes as specified in paragraph (11)(C)3.**

**5. In selecting a remedy that meets the standards of paragraph (11)(B)4. the owner/operator, and in approving a remedy, the department, shall consider the following evaluation factors:**

**A. The long- and short-term effectiveness and protectiveness of the potential remedy, along with the degree of certainty that the remedy will prove successful based on consideration of the following:**

**(I) Magnitude of reduction of existing risks;**

**(II) Magnitude of residual risks in terms of likelihood of further releases due to waste remaining following implementation of the proposed remedy;**

**(III) The type and degree of long-term management required, including monitoring, operation, and maintenance;**

**(IV) Short-term risks that might be posed to the community, workers, or the environment during implementation of the remedy, including potential threats to human health and the environment associated with excavation, transportation, redisposal, or containment;**

**(V) Time until full protection is achieved;**

**(VI) Potential for exposure of humans and environmental receptors to remaining wastes, considering the potential threat to human health and the environment associated with excavation, transportation, redisposal, or containment;**

**(VII) Long-term reliability of the engineering and institutional controls; and**

**(VIII) Potential need for replacement of the remedy;**

**B. The effectiveness of the remedy in controlling the source to reduce further releases based on consideration of the following factors:**

**(I) The extent to which containment practices will reduce further releases; and**

**(II) The extent to which treatment technologies may be used;**

**C. The ease or difficulty of implementing the potential remedy(ies) based on consideration of the following types of factors:**

**(I) Degree of difficulty associated with constructing the remedy technology;**

**(II) Expected operational reliability of the proposed technologies;**

**(III) Need to coordinate with and obtain necessary approvals and permits from other agencies;**

**(IV) Availability of necessary equipment and specialists; and**

**(V) Available capacity and location of needed treatment, storage, and disposal services; and**

**D. The degree to which community concerns are addressed by the proposed remedy(ies).**

**6. The owner/operator shall specify as part of the proposed remedy a schedule(s) for initiating, implementing, and completing remedial activities. This schedule must require the completion of remedial activities within a reasonable period of time taking into consideration the factors set forth in subparagraphs (11)(B)6.A. through H. The owner/operator shall consider the following factors in determining, and the department will consider the following factors in approving, the schedule of remedial activities:**

**A. Extent and nature of contamination as determined by the characterization required pursuant to subsection (10)(F);**

**B. Reasonable probabilities of remedial technologies in achieving compliance with groundwater protection standards established in paragraph (10)(F)8. and other objectives of the remedy;**

**C. Availability of treatment or disposal capacity for CCR managed during implementation of the remedy;**

**D. Desirability of utilizing technologies that are not currently available, but which may offer significant advantages over already available technologies in terms of effectiveness, reliability, safety, or ability to achieve remedial objectives;**

**E. Potential risks to human health and the environment from exposure to contamination prior to completion of the remedy;**

F. Resource value of any affected aquifer including:

(I) Current and future uses;

(II) Proximity and withdrawal rate of users;

(III) Groundwater quantity and quality;

(IV) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to the waste constituent;

(V) The hydrogeologic characteristic of the facility and surrounding land; and

(VI) The availability of alternative water supplies;

G. Practicable capability of the owner/operator; and

H. Other relevant factors.

(C) Implementation of the corrective action program.

1. If required to select a remedy pursuant to subsection (11)(B), the owner/operator must initiate remedial activities within ninety (90) days. Based on the schedule established pursuant to subsection (11)(B) for initiation, implementation and completion of remedial activities the owner/operator shall:

A. Establish and implement a corrective action groundwater monitoring program that:

(I) At a minimum, meets the requirements of an assessment monitoring program of subsection (10)(F);

(II) Indicates the effectiveness of the corrective action remedy; and

(III) Demonstrates compliance with groundwater protection standards pursuant to paragraph (10)(F)8.;

B. Implement the corrective action remedy selected under subsection (11)(B); and

C. Take any interim measures necessary, any measures determined to be necessary by the department, or both, to reduce the contaminants from leaching from the utility waste or CCR landfill, and/or potential exposures to human or ecological receptors. Interim measures shall, to the greatest extent feasible, be consistent with the objectives of and contribute to the performance of any remedy that may be required pursuant to subsection (11)(B). The following factors shall be considered by an owner/operator, and will be considered by the department, in determining whether interim measures are necessary:

(I) Time required to develop and implement a final remedy;

(II) Actual or potential exposure of nearby populations or environmental receptors to hazardous constituents listed in Appendix II;

(III) Actual or potential contamination of drinking water supplies or sensitive ecosystems;

(IV) Further degradation of the groundwater that may occur if remedial action is not initiated expeditiously;

(V) Weather conditions that may cause hazardous constituents to migrate or be released;

(VI) Potential for exposure to any of the constituents listed in Appendix II to this rule as a result of an accident or failure of a container or handling system;

(VII) Risks of fire or explosion, or potential for exposure to hazardous constituents as a result of an accident or failure of a container or handling system; and

(VIII) Other situations that may pose threats to human health and the environment.

2. The department may determine, based on information developed after implementation of the remedy has begun or other information, that compliance with the requirements of subsection (11)(B) are not being achieved through the remedy selected. In those cases, the owner/operator shall implement other methods or techniques that could feasibly achieve compliance with the requirements. Remedies selected pursuant to subsection (11)(B) shall be considered complete when—

A. The owner/operator complies for three (3) consecutive years with the groundwater protection standards established pursuant to paragraph (10)(F)8. at all points within the plume of contamination that lie beyond the groundwater monitoring well system established pursuant to section (10);

B. Compliance with the groundwater protection standards established pursuant to paragraph (10)(F)8, has been achieved within the plume of contamination that lies beyond the groundwater monitoring well system following risk assessment, or at a compliance point otherwise established by the department; and

C. All actions required to complete the remedy have been completed.

3. All CCR that are managed pursuant to a remedy required under subsection (11)(B), or an interim measure required under subparagraph (11)(C)1.C. shall be managed in a manner that complies with all applicable Resource Conservation Recovery Act requirements.

4. Upon completion of the remedy, the owner/operator shall submit a certification to the department within fourteen (14) days after the remedy has been completed in compliance with the requirements of subsection (11)(C). The certification shall be signed by the owner/operator and by a professional engineer prior to review and approval by the department. The report has been completed when it is placed in the operating record after department approval.

5. When, upon completion of the certification, the owner/operator and the department determine that the corrective action remedy has been completed in accordance with the requirements under subsection (11)(C), the owner/operator shall be released from the requirements for financial assurance for corrective action.

(12) Air Quality.

(A) The design, construction, and operation of the utility waste or CCR landfill shall minimize environmental hazards and shall conform to applicable ambient air quality and source control regulations.

(B) Fugitive dust control plan. The owner/operator must prepare and operate in accordance with a fugitive dust control plan as specified below:

1. The fugitive dust control plan must identify and describe measures the owner/operator will use to minimize CCR from becoming airborne at the facility. The owner/operator must select, and include in the fugitive dust control plan, measures that are most appropriate for site conditions, along with an explanation of how the measures selected are applicable and appropriate for site conditions and periodically assess the effectiveness of the control plan;

2. The fugitive dust control plan must include procedures to emplace CCR as conditioned CCR. Conditioned CCR means wetting CCR with water to a moisture content that will prevent wind dispersal, but will not result in free liquids. In lieu of water, CCR conditioning may be accomplished with an appropriate chemical dust suppression agent approved by the department; and

3. Amendment of the plan. The owner/operator must amend the written plan whenever there is a change in conditions that would substantially affect the written plan in effect and submit the revised plan to the department for review and approval.

(13) Aesthetics. The utility waste or CCR landfill shall be designed and operated at all times in an aesthetically acceptable manner. Wastes that are easily moved by wind shall be covered, as necessary, to prevent becoming airborne and scattered. On-site vegetation should be cleared only as necessary. Natural windbreaks, such as green belts, should be maintained where they will improve the appearance and operation of the utility waste or CCR landfill. Mining operations for the purpose of removing waste for beneficial reuse shall be conducted in such a manner as to not detract from the appearance of the utility waste or CCR landfill and receive prior approval from the department. All

**Water Protection Program permits and approvals necessary to comply with the Missouri Clean Water Law and corresponding rules shall be obtained from the department.**

**(14) Cover.**

**(A) Cover shall be applied to: minimize infiltration of precipitation, prevent fugitive dust, and provide final cover as outlined below:**

**1. The permeability of the final cover system must be less than or equal to the permeability of any bottom liner system or natural subsoils present, or a permeability no greater than $1 \times 10^{-5}$ cm/sec, whichever is less;**

**2. This final cover consists of component layers, in order from top to bottom, as follows:**

**A. Six inches (6") of soil capable of sustaining vegetative growth;**

**B. An infiltration layer that contains a minimum of eighteen inches (18") of earthen material, with a coefficient of permeability of $1 \times 10^{-5}$ cm/sec or less; and**

**C. Vegetation shall be established within one (1) year of initial seeding or within an alternative schedule approved by the department;**

**3. The cover system integrity must be maintained throughout the operational and post closure periods;**

**4. Surface grades and side slopes need to promote maximum runoff, without excessive erosion, and to minimize infiltration. Final side slopes shall not exceed twenty-five percent (25%) unless it has been demonstrated in a detailed slope stability analysis approved by the department that the slopes can be constructed and maintained throughout the entire operational life and post-closure period of the landfill. No active or final slope shall exceed thirty-three and one-third percent (33 1/3%);**

**5. Procedures to establish and maintain vegetative growth to combat erosion and improve appearance of idle and completed areas. Procedures shall include: seeding rate, fertilizer rate, soil conditioning rate, and provisions for mulching;**

**5. Procedures to maintain cover integrity, for example, regrading, and recovering;**

**7. Methods for borrow areas to be reclaimed so as to restore aesthetic qualities and prevent excessive erosion;**

**8. The final slope of the top of the utility waste or CCR landfill shall have a minimum slope of one percent (1%); and**

**9. The department may approve the use of an alternative final cover system provided that the owner/operator can demonstrate to the department that the alternative design will be at least equivalent to the final cover system described in this section.**

**(15) Post-Closure Care Requirements.**

**(A) Post-closure care maintenance requirements. Following closure of the utility waste or CCR landfill, the owner/operator must conduct post-closure care for the utility waste or CCR landfill, which must consist of at least the following:**

**1. Maintain the integrity and effectiveness of the final cover system, including making repairs to the final cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover;**

**2. Maintain the integrity and effectiveness of the leachate collection and removal system and operate the leachate collection and removal system in accordance with the approved plans; and**

**3. Maintain the groundwater monitoring system and monitor the groundwater in accordance with the approved plans.**

**(B) Post-closure care period.**

**1. The owner/operator of the utility waste or CCR landfill must conduct post-closure care for thirty (30) years. However, the post-closure care period may be:**

**A. Decreased by the department if the owner/operator demonstrates that the reduced period is sufficient to protect human health and the environment and this demonstration is approved by the department; or**

**B. Increased by the department if determined that the lengthened period is necessary to protect human health and the environment.**

**2. If at the end of the post-closure care period the owner/operator of the utility waste or CCR landfill is operating under assessment monitoring then post-closure care shall continue until the owner/operator returns to detection monitoring.**

**3. Written post-closure plan.**

**A. Contents of the plan. The owner/operator of a utility waste or CCR landfill must prepare a written post-closure plan that includes, at a minimum, the information specified below:**

**(I) A description of the monitoring and maintenance activities required and the frequency at which these activities will be performed;**

**(II) The name, address, telephone number, and email address of the person or office to contact about the facility during the post-closure care period;**

**(III) A description of the planned uses of the property during the post-closure period. Post-closure use of the property shall not disturb the integrity of the final cover, liner(s), or any other component of the containment system, or the function of the monitoring systems unless corrective action is necessary as approved by the department; and**

**(IV) No other disturbance is allowed, unless the owner/operator of the utility waste or CCR landfill demonstrates that disturbance of the final cover, liner, or other component of the containment system, including any removal of CCR, will not increase the potential threat to human health or the environment. The demonstration must be certified by a professional engineer, and submitted to the department for approval.**

**B. Amendment of a written post-closure plan. The owner/operator may amend the initial or any subsequent written post-closure plan developed pursuant to approval by the department.**

**(C) Completion of post closure.**

**1. No later than sixty (60) days following completion of the post closure care period, the owner/operator of a utility waste or CCR landfill must submit a notification to the department verifying the post closure care has been completed. The notification must include a certification by a professional engineer verifying that post closure care has been completed in compliance with the post-closure plan specified in this section and 10 CSR 80-2.030.**

**(16) Safety. The utility waste or CCR landfill shall be designed, constructed, and operated in a manner so as to protect the health and safety of personnel and others associated with and affected by the operation. Access to the facility must be controlled and appropriate safety equipment required.**

**(17) Records.**

**(A) The owner/operator of a utility waste or CCR landfill shall maintain records and monitoring data as specified by the department in their operating record and file appropriate documents with the county recorder(s) of deeds.**

**1. Records shall be maintained at the facility site. Records five (5) years old or older may be stored at an alternate site, if approved by the department; such stored records must be made available at the landfill upon request of department personnel.**

**2. An owner/operator with more than one (1) utility waste or CCR landfill that is subject to the provisions of this rule may comply with the requirements of this section by using a single recordkeeping system provided the system identifies each file by the name of each utility waste or CCR landfill. The files may be maintained on electronic media accessible by a computer using common software. Records must cover at least the following:**

**A. Copies of the approved permit documents and plans, and the current permit;**

**B. Major operational problems, complaints, and difficulties;**

**C. Any demonstration, certification, finding, monitoring, testing, or analytical data required under this rule;**

**D. The current fugitive dust control plan and annual report, as well as dust and litter control efforts;**

**E. Closure and post-closure care plans and any monitoring, testing, or analytical data;**

**F. Most recently approved cost estimates and financial assurance documentation; and**

**G. Records associated with corrective measures.**

**3. Upon closing of the utility waste or CCR landfill, the existence of the utility waste or CCR landfill shall be recorded with the recorder(s) of deeds in the county(ies) where the utility waste or CCR landfill is located. The owner/operator may request permission from the department to remove the notation from the deed if all wastes are removed from the facility.**

**A. A survey and plat meeting the requirements of the current Missouri Standards for Property Boundary Surveys, 2 CSR 90-60, and detailed description of the utility waste or CCR landfill shall be prepared by a land surveyor. The survey plat and detailed description, at a minimum, shall contain the following information:**

**(I) The name of the property owner as it appears on the property deed;**

**(II) The detailed description of the property;**

**(III) The general types and location of the wastes and the depth(s) of fill within the property; and**

**(IV) The location of any leachate control or water monitoring systems, which shall be maintained after closure, and the length of time that these systems are to be maintained.**

**B. The owner/operator shall—**

**(I) Obtain approval from the department of the survey plat and detailed description;**

**(II) Have the plat notarized by a lawful notary public;**

**(III) File the survey plat and description with the county recorder of deeds within thirty (30) days of department approval; and**

**(IV) Submit to the department within thirty (30) days of filing, two (2) copies of the notarized and properly recorded survey plat and detailed description showing the recorder of deeds' seal or stamp, the book and page numbers, and the date of filing.**

**(18) Self-Certification.**

**(A) Existing CCR landfills must within thirty (30) days of the effective date of this rule or thirty (30) days of request by the department, provide to the department for review and approval a self-certification report verifying compliance with the requirements of subsection (18)(B) and additionally include the following:**

**1. The name and address of the owner/operator or permitee of the CCR landfill; the name associated with the CCR landfill; and the permit number of the CCR landfill if one has been assigned;**

**2. The location of the CCR landfill identified on the most recent United States Geological Survey (USGS) seven and one half (7 1/2) minute or fifteen (15) minute topographic quadrangle map, or a topographic map of equivalent scale if a USGS map is not available;**

**3. A statement of the purpose for which the CCR landfill is being used;**

**4. The name and size in acres of the watershed within which the CCR landfill is located;**

**5. Describe the groundwater monitoring network and plan, and summarize the data obtained;**

**6. Upon request, provide all groundwater monitoring data in a digital format specified by the department;**

**7. Provide any initial or interim closure plan and post closure plan prepared prior to the effective date of this rule;**

**8. Identify the groundwater statistical procedure chosen and background values;**

**9. Identify whether a SSI exists over background values;**

**10. Identify any planned additional groundwater investigations, including a schedule; and**

**11. Provide a schedule for future detection or assessment monitoring. The department may consider all relevant data whether or not it was collected from a groundwater monitoring network installed as a requirement of Title 40 CFR 257 subtitle D.**

**(B) Certifications. Certifications from a professional engineer, professional or registered geologist, or toxicologist as appropriate shall be submitted to the department certifying for the following technical assessments that:**

**1. The location restrictions meet the requirements of this rule;**

**2. The design of the composite liner or alternative composite liner meets the requirements of this rule, and the cover system meets the requirements of this rule;**

**3. The design and construction of the groundwater monitoring system and statistical analysis plan meets the requirements of this rule;**

**4. The design and construction of the closure and post-closure plan meets the requirements of this rule; and**

**5. A compiled history of construction for the CCR landfill that, to the extent feasible, contains—**

**A. A description of the physical and engineering properties of the foundation and abutment materials on which the CCR landfill is constructed;**

**B. A statement of the type, size, range, and physical and engineering properties of the materials used in constructing each phase or stage of the CCR landfill; the method of site preparation and construction of each zone of the CCR landfill; and the approximate dates of construction of each successive stage of the CCR landfill;**

**C. At a scale that details engineering structures and appurtenances relevant to the design, construction, operation, and maintenance of the CCR landfill, detailed dimensional drawings of the CCR landfill, including a plan view and cross sections of the length and width of the CCR landfill, showing all zones, foundation improvements, drainage provisions, spillways, diversion ditches, outlets, instrument locations, and slope protection, and any identifiable natural or manmade features that could adversely affect operation of the CCR landfill due to malfunction or misoperation;**

**D. A description of the type, purpose, and location of existing instrumentation;**

**E. A description of each diversion design feature and capacities and calculations used in their determination;**

**F. The construction specifications and provisions for surveillance, maintenance, and repair of the CCR landfill; and**

**G. Any record or knowledge of structural instability of the CCR landfill.**

**(C) Application for department approval and assessment of fees.**

**1. By October 1, 2019, all owner/operator of existing CCR landfills must submit to the department an application for review and approval of completeness of the reports, data, and assessments required in subsections (18)(A) and (B).**

**2. The application for review and approval will include the following:**

**A. A request to the department to review the documents that the owner/operator has certified;**

**B. Agreement to pay fees as provided by section 260.242,**

**RSMo.**

**3. Within sixty (60) days of receipt of the application, the department shall issue a letter approving or approving with conditions receipt of a complete application and accepting the CCR landfill into the state review process.**

**4. The owner/operator of CCR landfills shall submit engineering drawings or plans to the department detailing the manner and timing of closure. Such engineering drawings and plans shall be submitted ninety (90) days prior to commencement of closure.**

**(19) Closure of CCR Landfills.**

**(A) Closure of a CCR landfill or any lateral expansion of a CCR landfill must be completed either by leaving the CCR in place and installing a final cover system or through removal of the CCR and decontamination of the CCR landfill, as described in subsections (19)(B) through (J).**

**(B) Written Closure Plan.**

**1. Content of the plan. The owner/operator of a CCR landfill must prepare a written closure plan that describes the steps necessary to close the CCR landfill at any point during the active life of the CCR landfill consistent with recognized and generally accepted good engineering practices. The written closure plan must include the following information:**

**A. A narrative description of how the CCR landfill will be closed in accordance with this section;**

**B. If closure of the CCR landfill will be accomplished through removal of CCR, a description of the procedures to remove the CCR and decontaminate the CCR landfill in accordance with subsection (19)(C);**

**C. If closure of the CCR landfill will be accomplished by leaving CCR in place, a description of the final cover system, designed in accordance with subsection (19)(D), and the methods and procedures to be used to install the final cover. The closure plan must also discuss how the final cover system will achieve the performance standards specified in subsection (19)(D);**

**D. An estimate of the maximum inventory of CCR ever on site over the active life of the CCR landfill;**

**E. An estimate of the largest area of the CCR landfill ever requiring a final cover as required by subsection (19)(D) at any time during the CCR landfill's active life; and**

**F. A schedule for completing all activities necessary to satisfy the closure criteria in this section, including an estimate of the year in which all closure activities for the CCR landfill will be completed. The schedule should provide sufficient information to describe the sequential steps that will be taken to close the CCR landfill, including identification of major milestones such as coordinating with and obtaining necessary approvals and permits from other agencies, installation of the final cover system, and the estimated timeframes to complete each step or phase of CCR landfill closure. When preparing the written closure plan, if the owner/operator of a CCR landfill estimates that the time required to complete closure will exceed the timeframes specified in paragraph (19)(F)1., the written closure plan must include the site-specific information, factors, and considerations that would support any time extension sought under paragraph (19)(F)2.**

**2. Timeframes for preparing the initial written closure plan.**

**A. Existing utility waste or CCR landfills. The owner/operator of the CCR landfill must provide the initial written closure plan prepared pursuant to 40 CFR 257 and place the plan in the facility's operating record.**

**B. After the effective date of this rule, new CCR landfills or lateral expansions of a CCR landfill must submit a written closure plan to the department for review and approval as part of the new construction permit application that is consistent with the requirements listed in paragraph (19)(B)1.**

**3. Amendment of a written closure plan.**

**A. The owner/operator may amend the initial or any subsequent written closure plan developed pursuant to section (19) at any time.**

**B. The owner/operator must amend the written closure plan whenever—**

**(I) There is a change in the operation of the CCR landfill that would substantially affect the written closure plan in effect; or**

**(II) Before or after closure activities have commenced, unanticipated events necessitate a revision of the written closure plan.**

**C. The owner/operator must amend the closure plan and receive department approval prior to an operational change at the facility or CCR landfill. If a closure plan requires revision after closure activities have commenced for a CCR landfill, the owner/operator must submit the amendment to the department for review and approval no later than thirty (30) days following the triggering event.**

**4. The owner/operator of the CCR landfill must obtain a written approval from the department for any closure plan or amendment of a closure plan. Closure plans must meet the requirements of this section.**

**(C) Closure by removal of CCR. An owner/operator may elect to close a CCR landfill by removing and decontaminating all areas affected by releases from the CCR landfill. CCR removal and decontamination are complete when constituent concentrations throughout the CCR landfill and any areas affected by releases have been removed and groundwater monitoring concentrations do not exceed the groundwater protection standard established pursuant to paragraph (10)(F)8. for constituents listed in Appendix II. CCR landfills closed by removing the CCR are not subject to the post-closure criteria contained in section (15).**

**(D) Closure performance standard when leaving CCR in place.**

**1. The owner/operator of a CCR landfill must ensure that, at a minimum, the CCR landfill is closed in a manner that will—**

**A. Control, minimize, or eliminate, to the maximum extent feasible, post-closure infiltration of liquids into the waste and releases of CCR, leachate, or contaminated run-off to the ground or surface waters or to the atmosphere;**

**B. Preclude the probability of future impoundment of water, sediment, or slurry;**

**C. Include measures that provide for major slope stability to prevent the sloughing or movement of the final cover system during the closure and post-closure care period;**

**D. Minimize the need for further maintenance of the CCR landfill; and**

**E. Be completed in the shortest amount of time consistent with recognized and generally accepted good engineering practices.**

**2. Final cover system. If a CCR landfill is closed by leaving CCR in place, the owner/operator must install a final cover system, or an alternative final cover system, that is designed to minimize infiltration and erosion, and at a minimum, meets the following requirements:**

**A. The design of the final cover system must be included in the written closure plan required by subsection (19)(B). The final cover system must be designed and constructed to meet the criteria provided in section (14);**

**B. The owner/operator may select an alternative final cover system design, provided the alternative final cover system is designed and constructed to meet the performance criteria in section (14). The design of the final cover system must be included in the written closure plan required by subsection (19)(B).**

**(I) The design of the final cover system must include an infiltration layer that achieves an equivalent reduction in infiltration as the infiltration layer specified in section (14).**

**(II) The design of the final cover system must include an erosion layer that provides equivalent protection from wind or**

water erosion as the erosion layer specified in section (14).

(III) The disruption of the integrity of the final cover system must be minimized through a design that accommodates settling and subsidence; and

C. For final cover systems installed prior to the effective date of this rule, the owner/operator of the CCR landfill must obtain a written certification from a professional engineer that the design of the final cover system meets the requirements of 40 CFR 257.102. Final cover systems installed after the effective date must meet the criteria contained in this section. The department will receive documentation in accordance with section (18).

(E) Initiation of closure activities. Except as provided for in paragraph (19)(E)4. and section (20), the owner/operator of a CCR landfill must commence closure no later than the applicable timeframes specified in either paragraph (19)(E)1. or 2., the CCR landfill owner/operator must also notify the department one hundred and eighty (180) days prior to initiating closure.

1. The owner/operator must commence closure of the CCR landfill no later than thirty (30) days after the date on which the CCR landfill either:

A. Receives the known final receipt of waste, either CCR or any non-CCR waste stream; or

B. Removes the known final volume of CCR from the CCR landfill for the purpose of beneficial use of CCR.

2. Initiation of closure activities timeframes.

A. Except as provided by subparagraph (19)(E)2.B., the owner/operator must commence closure of a CCR landfill that has not received CCR or any non-CCR waste stream or is no longer removing CCR for the purpose of beneficial use within two (2) years of the last receipt of waste or within two (2) years of the last removal of CCR material for the purpose of beneficial use.

B. Notwithstanding subparagraph (19)(E)2.A. the owner/operator of the CCR landfill may petition the department for an additional two (2) years to initiate closure of the idle utility waste or CCR landfill provided the owner/operator provides written documentation that the CCR landfill will continue to accept wastes or will start removing CCR for the purpose of beneficial use. The documentation must be supported by, at a minimum, the information specified in parts (19)(E)2.B.(I) and (II). The owner/operator may obtain two (2) two- (2-) year extensions provided the owner/operator continues to be able to demonstrate that there is reasonable likelihood that the CCR landfill will accept wastes in the foreseeable future or will remove CCR from the landfill for the purpose of beneficial use. The owner/operator must submit to the department for approval each completed demonstration, if more than one (1) time extension is sought prior to the end of any two- (2-) year period including:

(I) Information documenting that the CCR landfill has remaining storage or disposal capacity or that the CCR landfill can have CCR removed for the purpose of beneficial use; and

(II) Information demonstrating that that there is a reasonable likelihood that the CCR landfill will resume receiving CCR or non-CCR waste streams in the foreseeable future or that CCR can be removed for the purpose of beneficial use. The narrative must include a best estimate as to when the CCR landfill will resume receiving CCR or non-CCR waste streams. The situations listed in subparts (19)(E)2.B.(II)(a) through (d) are examples of situations that would support a determination that the CCR landfill will resume receiving CCR or non-CCR waste streams in the foreseeable future:

(a) Normal plant operations include periods during which the CCR landfill does not receive CCR or non-CCR waste streams, such as the alternating use of two (2) or more CCR landfills whereby at any point in time one (1) CCR landfill is receiving CCR while CCR is being removed from a second CCR landfill after its dewatering;

(b) The CCR landfill is dedicated to a coal-fired boiler unit that is temporarily idled (e.g., CCR is not being generated) and there is a reasonable likelihood that the coal-fired boiler will resume operations in the future;

(c) The CCR landfill is dedicated to an operating coal-fired boiler (i.e., CCR is being generated); however, no CCR are being placed in the CCR landfill because the CCR are being entirely diverted to beneficial uses, but there is a reasonable likelihood that the CCR landfill will again be used in the foreseeable future; and

(d) The CCR landfill currently receives only non-CCR waste streams and those non-CCR waste streams are not generated for an extended period of time, but there is a reasonable likelihood that the CCR landfill will again receive non-CCR waste streams in the future.

C. In order to obtain additional time extension(s) to initiate closure of a CCR landfill beyond the two (2) years provided by subparagraph (19)(E)2.A., the owner/operator of the CCR landfill must include with the demonstration required by subparagraph (19)(E)2.B. the following statement signed by the owner/operator or an authorized representative:

(I) "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

3. For purposes of this paragraph, closure of the CCR landfill has commenced if the owner/operator has ceased placing waste and completes any of the following actions or activities:

A. Taken any steps necessary to implement the written closure plan required by subsection (19)(B);

B. Submitted a completed application for any required state or agency permit or permit modification; or

C. Taken any steps necessary to comply with any state or other agency standards that are a prerequisite, or are otherwise applicable, to initiating or completing the closure of a CCR landfill.

4. The timeframes specified in paragraphs (19)(E)1. and 2. do not apply to an owner/operator of an existing CCR landfill closing the CCR landfill for failure to meet the criteria in subsection (1)(B).

(F) Completion of closure activities.

1. Except as provided for in paragraph (19)(F)2., for existing and new CCR landfills and any lateral expansion of a CCR landfill, the owner/operator must complete closure of the CCR landfill within six (6) months of commencing closure activities or another timeframe as approved by the department as part of the official closure plan.

2. Extensions of closure timeframes following approval of the official closure plan.

A. The timeframes for completing closure of a CCR landfill specified under paragraph (19)(F)1. may be extended if the owner/operator can demonstrate that it was not feasible to complete closure of the CCR landfill within the required timeframes due to factors beyond the facility's control. If the owner/operator is seeking a time extension beyond the time specified in the written closure plan as required by paragraph (19)(B)1., the demonstration must include a narrative discussion providing the basis for additional time beyond that specified in the closure plan. Factors that may support such a demonstration include:

(I) Complications stemming from the climate and weather, such as unusual amounts of precipitation or a significantly shortened construction season;

(II) The geology and terrain surrounding the CCR landfill will affect the amount of material needed to close the CCR landfill; or

(III) Time required or delays caused by the need to

**coordinate with and obtain necessary approvals and permits from state and local agencies.**

**B. Maximum time extensions. CCR landfills may extend the timeframe to complete closure of the CCR landfill multiple times, in one- (1-) year increments. For each one- (1-) year extension sought, the owner/operator must substantiate the factual circumstances demonstrating the need for the extension. No more than a total of two (2) one- (1-) year extensions may be obtained for any CCR landfill.**

**C. In order to obtain additional time extension(s) to complete closure of a CCR landfill beyond the times provided by paragraph (19)(F)1., the owner/operator must submit to the department for review and approval, the demonstration required by subparagraph (19)(F)2.A. along with the following statement signed by the owner/operator or an authorized representative:**

**(I) "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."**

**3. Upon completion, the owner/operator of the CCR landfill must obtain a certification from a professional engineer verifying that closure has been completed in accordance with the closure plan specified in subsection (19)(B) and the requirements of this section and submit the certification to the department for review and approval.**

**(G) No later than the date the owner/operator initiates closure of a CCR landfill, the owner/operator must submit a closure notification to the department.**

**(H) Within thirty (30) days of completion of closure of the CCR landfill or within a timeframe agreed to by the department, the owner/operator must submit a closure notification to the department. The notification must include the certification by a professional engineer as required by paragraph (19)(F)3.**

**(I) Deed notations – See section (17) and 10 CSR 2.030. An owner/operator that closes a CCR landfill through closure by removal in accordance with subsection (19)(C) is not subject to the deed notation requirements of subsection (19)(I).**

**(J) The owner/operator of the CCR landfill must comply with the closure recordkeeping requirements specified in section (17).**

**(20) Alternative Closure Requirements.**

**(A) The owner/operator of a CCR landfill, or any lateral expansion of a CCR landfill that is subject to closure pursuant to subsection (1)(B) may continue to receive CCR in the landfill provided the owner/operator meets the requirements of either subsection (20)(A) or (B) and receives department approval.**

**1. No alternative CCR disposal capacity. Notwithstanding the provisions of (1)(B), a CCR landfill may continue to receive CCR if the owner/operator of the CCR landfill certifies that the CCR must continue to be managed in that CCR landfill due to the absence of alternative disposal capacity both on site and off site of the facility. To qualify under this paragraph, the owner/operator of the CCR landfill must document that all of the following conditions have been met:**

**A. No alternative disposal capacity is available on site or off site. An increase in costs or the inconvenience of existing capacity is not sufficient to support qualification under this section;**

**B. The owner/operator has made, and continues to make, efforts to obtain additional capacity. Qualification under this subsection lasts only as long as no alternative capacity is available. Once alternative capacity is identified, the owner/operator must arrange to use such capacity as soon as feasible;**

**C. The owner/operator must remain in compliance with all other requirements of this rule, including the requirement to conduct any necessary corrective action; and**

**D. The owner/operator must prepare an annual progress report documenting the continued lack of alternative capacity and the progress towards the development of alternative CCR disposal capacity.**

**2. Once alternative capacity is available, the CCR landfill must cease receiving CCR and initiate closure following the timeframes in section (19).**

**3. If no alternative capacity is identified within five (5) years after the initial certification, the CCR landfill must cease receiving CCR and close in accordance with the timeframes in section (19).**

**(B) Permanent cessation of a coal-fired boiler(s) by a date certain. Notwithstanding the provisions of subsection (1)(B), a CCR landfill may continue to receive CCR if the owner/operator certifies that the facility will cease operation of the coal-fired boilers within the timeframes specified in paragraph (20)(B)4., but in the interim period (prior to closure of the coal-fired boiler), the facility must continue to use the CCR landfill due to the absence of alternative disposal capacity both on-site and off-site of the facility. To qualify under this subsection, the owner/operator of the CCR landfill must document that all of the following conditions have been met and submit such documentation to the department for review and approval:**

**1. No alternative disposal capacity is available on site or off site. An increase in costs or the inconvenience of existing capacity is not sufficient to support qualification under this section;**

**2. The owner/operator must remain in compliance with all other requirements of this subsection, including the requirement to conduct any necessary corrective action;**

**3. The owner/operator must prepare an annual progress report documenting the continued lack of alternative capacity and the progress towards the closure of the coal-fired boiler; and**

**4. For a CCR landfill, the coal-fired boiler must cease operation, and the CCR landfill must complete closure no later than April 19, 2021.**

**(C) Required notices and progress reports. An owner/operator of a CCR landfill that closes in accordance with subsection (20)(A) or (B) must complete and submit the notices and progress reports to the department specified in paragraphs (2)(C)1. and 2.**

**1. Within six (6) months of becoming subject to closure pursuant to subsection (1)(B), the owner/operator must prepare and submit to the department a notification of intent to comply with the alternative closure requirements of this section. The notification must describe why the CCR landfill qualifies for the alternative closure provisions under either subsection (20)(A) or (B), in addition to providing the documentation and certifications required by subsection (20)(A) or (B).**

**2. The owner/operator must prepare the periodic progress reports required by subparagraph (20)(A)1.D. or paragraph (20)(B)3., in addition to describing any problems encountered and a description of the actions taken to resolve the problems. The annual progress reports must be completed according to the following schedule:**

**A. The first annual progress report must be prepared and submitted to the department for approval no later than thirteen (13) months after receiving department approval of the alternative closure requirements.**

**B. The second annual progress report must be prepared and submitted to the department for approval no later than twelve (12) months after completing the first annual progress report. Additional annual progress reports must be prepared and submitted to the department for approval within twelve (12) months of completing the previous annual progress report.**

**C. The owner/operator has completed the progress reports specified in paragraph (20)(C)2. when the reports are submitted to the department for approval, determined complete**

**by the department, and the reports have been placed in the facility's operating record.**

**D. An owner/operator of a CCR landfill must also prepare the notification of intent to close a CCR landfill as required by section (19).**

**E. The owner/operator of the CCR landfill must comply with the recordkeeping requirements specified in section (17).**

**Appendix I—Constituents for Detection Monitoring**
**Boron**
**Calcium**
**Chloride**
**Fluoride**
**pH**
**Sulfate**
**Total Dissolved Solids (TDS)**

**Appendix II—Constituents for Assessment Monitoring**
**Antimony**
**Arsenic**
**Barium**
**Beryllium**
**Cadmium**
**Chromium**
**Cobalt**
**Fluoride**
**Lead**
**Lithium**
**Mercury**
**Molybdenum**
**Selenium**
**Thallium**
**Radium 226 and 228 combined**

*AUTHORITY: section 260.225, RSMo [(Cum. Supp. 1996)] **2016**. Original rule filed Oct. 10, 1996, effective July 30, 1997. Amended: Filed Dec. 31, 2018.*

*PUBLIC COST: This proposed amendment will cost state agencies or political subdivisions seven hundred and four thousand six hundred and forty-one dollars ($704,641) in aggregate.*

*PRIVATE COST: This proposed amendment will cost private entities approximately seven hundred and twenty thousand dollars ($720,000) in the aggregate.*

*NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed amendment with the Missouri Department of Natural Resources, 1101 Riverside Drive, Jefferson City, MO. To be considered, comments will be received until March 28, 2019. A public hearing is scheduled for 1:00 p.m. March 21, 2019, at the LaCharrette Conference Room, 1101 Riverside Drive, Jefferson City, Missouri.*

**FISCAL NOTE**

**PUBLIC COST**

**I. RULE NUMBER**

| |
|---|
| 10 CSR 80-11.010 Utility Waste and Coal Combustion Residuals Landfills |
| Amendment |

**II. SUMMARY OF FISCAL IMPACT**

| Affected Agency or Political Subdivision | Estimated Cost of Compliance in the Aggregate |
|---|---|
| Missouri Department of Natural Resources | $704,641.00 |
| No other public entities should incur cost | |
| | |

III. Worksheet

| I. Fund Costs by Category | FY 2019 | FY 2020 | FY 2021 | Total per Rule |
|---|---|---|---|---|
| Salaries | $165,330.00 | $333,967.00 | $337,306.00 | |
| Fringe Benefits | $103,043.00 | $163,916.00 | $164,908.00 | |
| Equipment and Expense | $75,804.00 | $32,103.00 | $32,905.00 | |
| Local Assistance | $0.00 | $0.00 | $0.00 | |
| Other Fund Costs | $0.00 | $0.00 | $0.00 | |
| **TOTAL FUND COSTS - ALL CATEGORIES** | **$344,177.00** | **$529,986.00** | **$535,119.00** | |
| **Divided in Half per rule** | **$172,088.50** | **$264,993.00** | **$267,559.50** | **$704,641.00** |

IV. Assumptions

1. The totals in the worksheet above are divided for the two CCR rules (landfill and impoundment) evenly.

| Position | FTE | Duties |
|---|---|---|
| Environmental Engineer I/II (at $58,896 annually) | 2 | Permit modifications, groundwater monitoring reviews, groundwater corrective action planning and oversight, Inspections, website review, new cell construction review and analysis |
| Environmental Specialist I/II/III (at $52,116 annually) | 1 | Groundwater monitoring, groundwater report reviews, inspections as needed |
| Environmental Specialist I/II/III (at $52,116 annually) | 2 | Quarterly inspections for each of the 37 ponds, beneficial use inspections, investigation efforts |
| Geologist I/II/III (at $56,520 annually) | 1 | Groundwater monitoring, groundwater corrective action, and geological and hydrological assessments for the siting of new CCR units |

**FISCAL NOTE**

**PRIVATE COST**

## I. RULE NUMBER

| |
|---|
| 10 CSR 80-11.010 Utility Waste and Coal Combustion Residuals Landfills |
| Amendment |

## II. SUMMARY OF FISCAL IMPACT

| Estimate of the number of entities by class which would likely be affected by the adoption of the proposed rule: | Classification by types of the business entities which would likely be affected: | Estimate in the aggregate as to the cost of compliance with the rule by the affected entities: |
|---|---|---|
| Electrical Generating Coal Fired Power Plants that have CCR Landfills | Corporations (9) | $720,000 for the first three years |
| | | |
| | | |

III. Worksheet

Landfills

| Name | Owner/Operator | County | Status | One-Time Fee | Annual Fee |
|---|---|---|---|---|---|
| Labadie | Ameren | Franklin | Active | N/A | $15,000 |
| Ameren Sioux Plant | Ameren | St. Charles | Active | N/A | $15,000 |
| Iatan | KCPL | Platte | Active | N/A | $15,000 |
| James River Power Station | CUS | Greene | Active | N/A | $15,000 |
| KCPL Montrose* | KCPL | Henry | Active | N/A | $15,000 |
| New Madrid | AECI | New Madrid | Active | N/A | $15,000 |
| Sibley* | KCPL | Jackson | Active | N/A | $15,000 |
| John Twitty Energy Center | CUS | Greene | Active | N/A | $15,000 |
| Empire Asbury | Empire | Jasper | Not constructed Post cell completion 2018 | N/A | $15,000 |
| | | | | $0 | $135,000 |

| Financial Assurance Instrument Preparation Cost | | |
|---|---|---|
| Lanfill Facilities Sites | FAI Cost | Total Cost |
| 9 | $5,000.00 | $45,000.00 |

| Cost Totals | Number of CCR Landfills | 2019 | 2020 | 2021 |
|---|---|---|---|---|
| Annual fee ($15,000/ unit) | 9 | $135,000 | $135,000 | $135,000 |
| FAI Cost | 9 | $45,000 | $0 | $0 |
| | | **$180,000** | **$135,000** | **$135,000** |

| Construction QA/QC after Closure for Report | | |
|---|---|---|
| Cost ($30,000 per landfill) | 9 | $270,000 |

IV. Assumptions

1. The fee is based on an annual fee of $15,000.00 per facility.
2. There are nine (9) facilities subject to the annual fee.
3. All facilities used for this calculation are Coal Combustion Residual Landfills as defined by 40 CFR 257.
4. Fee will be paid annually until the facility is approved for release from post closure by the Department of Natural Resources.
5. It is assumed that all facilities will not conduct closure by removal (i.e. facilities plan to leave CCR material in place as part of closure) and will pay the annual fees through the post closure period.
6. 40 CFR Part 257 was effective on October 19, 2015 the regulatory requirements mirror the federal regulations except that FAIs and construction quality assurance/ construction quality control (QA/QC) are state requirements.
7. FAIs will require the development of a financial worksheet and the submittal of a financial test. It is assumed that all Electrical Generating Coal Fired Power Plants that have CCR Landfills will use a financial test as their FAI mechanism due to the great asset versus debt ratios these entities typically have.
8. QA/QC will require the submittal of a summary report after closure. 40 CFR 257 has requirements for the Professional Engineer (PE) certification of all work completed at the CCR impoundment. The Department will require the submittal of a PE certified report summarizing the P.E.'s oversight of the work.
9. The QA/QC Cost will be incurred after the facilities close. We are unsure about closure dates.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 80—Solid Waste Management
## Chapter 12—Coal Combustion Residuals Surface Impoundments

### PROPOSED RULE

**10 CSR 80-12.010 Design and Operation – Coal Combustion Residuals Surface Impoundments.** This rule provides design, operation, and closure requirements for CCR surface impoundments similar to those contained in "Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments," part 257, subpart D of title 40, *Code of Federal Regulations*.

*PURPOSE: This rule pertains to the design, construction, and operation of coal combustion residuals (CCR) surface impoundments. The requirements of this rule ensure the operation of CCR surface impoundments have no adverse effects on human health or the environment.*

*PUBLISHER'S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.*

(1) General Provisions. This rule applies to new CCR surface impoundments constructed after the effective date of this rule and to existing CCR surface impoundments that did not certify final closure prior to October 19, 2015, under part 257, subpart D of title 40, *Code of Federal Regulations*. Applicable provisions contained in 10 CSR 80-2 also apply. In the event of a conflict between 10 CSR 80-2 and this rule, this rule shall prevail.

(A) If standards or techniques other than those listed in this rule are used, it is the obligation of the CCR surface impoundment owner/operator to demonstrate to the department in advance that the standards or techniques to be employed will be at least as protective as the criteria in this rule. Procedures for the standards or techniques shall be submitted to the department in writing and approved by the department in writing prior to being employed. Notwithstanding any other provision of these rules, when it is found necessary, the department may require changes in design and/or operation as the condition warrants.

(B) Existing CCR surface impoundments that do not meet the performance standards of paragraphs (3)(B)1., 3., 4., 5., or 6., subsection (5)(B) or (C), section (7), or fail to make the demonstrations required by section (18) must submit closure plans per regulation 10 CSR 80-2.030 and sections (19) and (20) of this rule and initiate closure within six (6) months on the effective date of this rule. Existing CCR surface impoundments that do not meet the performance standards of paragraph (3)(B)2. must submit closure plans per 10 CSR 80-2.030 and sections (19) and (20) of this rule and shall initiate closure by October 31, 2020. Closure schedules shall be approved by the department and shall include as part of the closure plan, site-specific information, factors, and considerations that would support any time extension requested. Until closure is achieved CCR surface impoundments shall continue to operate in compliance with this rule.

(C) The standards set forth in ASTM International, ASTM method D422-63(2007), 2007, ASTM Test D2487-11, 2011, ASTM D-5084-16, 2016, ASTM D1140-17 and ASTM method D4318-17, 2017, as published by ASTM International, West Conshohocken, PA 19428, are incorporated by reference. The standards set forth in the Endangered Species Act, as published by the United States Government Publishing Office, 732 N. Capital Street NW, Washington, D.C. 20401, 1973, are incorporated by reference. This rule does not incorporate any subsequent amendments or additions.

(2) Solid Waste Accepted. Fly ash, bottom ash, boiler slag or other slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels; coal residuals; clean fill; and department approved solidification additives used during closure of a CCR surface impoundment may be accepted.

(3) Site Selection.

(A) Site selection and utilization shall include a study and evaluation of geologic and hydrologic conditions and soils at the proposed CCR surface impoundment and an evaluation of the environmental effect upon the projected use of the completed CCR surface impoundment. Applications for CCR surface impoundment construction permits received on or after the effective date of this rule shall document compliance with all applicable siting restriction requirements contained in paragraphs (3)(B)1. through 6.

(B) Location restrictions.

1. Owners/operators of CCR surface impoundments, located in one hundred (100)-year floodplains shall demonstrate to the department that the CCR surface impoundment will not restrict the flow of the one hundred (100)-year flood, reduce the temporary water storage capacity of the floodplain, or result in release of waste or leachate so as to pose a hazard to public health or the environment.

2. Placement above the uppermost aquifer. CCR surface impoundments constructed or operated after October 19, 2015, including lateral expansions, must be constructed with a base that is located no less than 1.52 meters (five feet) above the upper limit of the uppermost aquifer, or must demonstrate that there will not be an intermittent, recurring, or sustained hydraulic connection between any portion of the base of the CCR surface impoundment and the uppermost aquifer due to normal fluctuations in groundwater elevations (including the seasonal high water table).

3. Wetlands. CCR surface impoundments shall not be located in wetlands, unless the owner/operator can make the following demonstrations to the department:

A. The presumption that a practicable alternative to the proposed CCR surface impoundment is available which does not involve wetlands is clearly rebutted;

B. The construction and operation of the CCR surface impoundment will not—

(I) Cause or contribute to violations of any applicable state water quality standard;

(II) Violate any applicable toxic effluent standard or prohibition under section 307 of the federal Clean Water Act of the U.S. Environmental Protection Agency;

(III) Violate any requirement under the Marine Protection, Research, and Sanctuaries Act of 1972 for the protection of a marine sanctuary;

C. The CCR surface impoundment will not cause or contribute to significant degradation of wetlands. The owner/operator shall demonstrate the integrity of the CCR surface impoundment and its ability to protect ecological resources by addressing the following factors:

(I) Erosion, stability, and migration potential of native wetland soils, muds and deposits used to support the CCR surface impoundment;

(II) Erosion, stability, and migration potential of dredged and fill materials used to support the CCR surface impoundment;

(III) The volume and chemical nature of the waste disposed of in the CCR surface impoundment;

(IV) Impacts on fish, wildlife, and other aquatic resources and their habitat from potential release of waste from the CCR surface impoundment;

(V) The potential effects of contamination of the wetland and the resulting impacts on the environment; and

(VI) Any additional factors, as necessary, to demonstrate that ecological resources in the wetland are sufficiently protected.

D. Steps have been taken to attempt to achieve no net loss of wetlands (as defined by acreage and function) by first avoiding impacts to wetlands to the maximum extent practicable as required by paragraph (3)(B)3., then minimizing unavoidable impacts to the maximum extent practicable, and finally offsetting remaining unavoidable wetland impacts through all appropriate and practicable compensatory mitigation actions (for example, restoration of existing degraded wetlands or creation of man-made wetlands); and

E. The requirements of paragraph (3)(B)3. may be satisfied by the owner/operator obtaining a United States Army Corps of Engineers permit for construction in a wetland or by demonstrating that the wetland is not regulated by the United States Army Corps of Engineers or other appropriate agency.

4. Fault areas. CCR surface impoundments located in a seismic impact zone shall not be located within two hundred feet (200') of a fault that has had displacement in Holocene time unless that owner/operator demonstrates to the department that an alternative setback distance of less than two hundred feet (200') will prevent damage to the structural integrity of the CCR surface impoundment and will be protective of human health and the environment.

5. Seismic impact zones. CCR surface impoundments must not be located in seismic impact zones unless the owner/operator demonstrates that all structural components including liners, leachate collection and removal systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site.

6. Unstable areas. The owner/operator of a CCR surface impoundment located in an unstable area shall demonstrate to the department that the CCR surface impoundment's design ensures that the integrity of the structural components of the CCR surface impoundment will not be disrupted. The owner/operator shall consider the following factors, at a minimum, when determining whether an area is unstable:

A. On-site or local rock or soil conditions that may result in failure or significant differential settling;

B. On-site or local geologic or geomorphologic features; and

C. On-site or local man-made features or events (both surface and subsurface).

7. Endangered species. CCR surface impoundments shall not—

A. Cause or contribute to the taking of any endangered or threatened species of plants, fish, or wildlife listed in section 4 of the Endangered Species Act; or

B. Result in the direct or indirect alteration of critical habitat which appreciably diminishes the likelihood of the survival and recovery of threatened or endangered species using that habitat of endangered or threatened species as identified in 50 CFR part 17.

8. Surface water. CCR surface impoundments shall operate in accordance with the Missouri Clean Water Law, corresponding rules, and permits and shall not—

A. Cause a discharge of pollutants into waters of the United States that is in violation of the requirements of the National Pollutant Discharge Elimination System (NPDES) under section 402 by the U.S. Environmental Protection Agency;

B. Cause a discharge of dredged material or fill material to waters of the United States that is in violation of the requirements under section 404; and

C. Cause non-point source pollution of waters of the United States that violates applicable legal requirements implementing an area-wide or statewide water quality management plan that has been approved by the administrator under section 208.

9. An owner/operator of a CCR surface impoundment may submit to the department for review and approval alternative location restrictions or requirements other than those listed in (3)(B)4., 5., and 6. if the owner/operator establishes through technical analysis and an engineering demonstration that adverse effects are not reasonably probable given the design, construction, and/or operation of the CCR surface impoundment in such location.

(4) Plans for new CCR surface impoundments shall include:

(A) A map showing initial and proposed topographies at contour intervals of five feet (5') or less having a scale of not less than one inch (1") equal to one hundred feet (100'). If the entire site cannot be illustrated on one (1) plan sheet, additional plan sheets should be included with appropriate horizontal and vertical scales in addition to the full site map;

(B) A map having a scale of not less than one inch (1") equals four hundred feet (400') identifying the land use and zoning within one-fourth (1/4) mile of the CCR surface impoundment including location of all residences, buildings, wells, water courses, springs, lakes, rock outcroppings, caves, sinkholes, and soil or rock borings. All electric, gas, water, sewer, and other utility easements or lines that are located on, under, or over the CCR surface impoundment shall be shown on the map;

(C) A description of the projected use of the closed CCR surface impoundment. In addition to maintenance programs and provisions, where necessary for monitoring and controlling leachate, the plans shall specify appropriate design, construction, and operating provisions for the CCR surface impoundment to complement the projected future use;

(D) An evaluation of the characteristics and quantity of available on-site soil with respect to its suitability for CCR surface impoundment operations. The engineering properties and quantity estimates of the on-site soil shall be discussed and shall include:

1. Texture. Sieve and hydrometer analyses shall be performed to determine grain size distribution of representative soil samples. Texture may be determined by using the procedures described in ASTM method D422-63(2007) (ASTM International, 100 Barr Harbor, West Conshohocken, PA 19428 Publication date 2007);

2. Plasticity. The liquid limit, plastic limit, and plasticity index of representative soil samples shall be determined. Plasticity may be determined by using the procedures described in ASTM method D4318-17 (ASTM International, 100 Barr Harbor, West Conshohocken, PA 19428 Publication date 2017);

3. Hydraulic conductivity. Laboratory hydraulic conductivity tests shall be performed upon undisturbed representative soil samples using a flexible wall permeameter as described in ASTM D-5084-16 (ASTM International, 100 Barr Harbor, West Conshohocken, PA 19428 Publication date 2016). If an aquifer is found to be laterally continuous across the anticipated limit of the proposed CCR surface impoundment, the hydraulic conductivity of each significant continuous geologic unit must be determined. Examples of accepted field tests are in situ slug or pump tests, which isolate the geologic unit of interest; and

4. Areal extent and depth. The areal extent and depth of soil suitable for CCR surface impoundment construction shall be determined, clearly describing variations in soil depth; and

(E) A demonstration by the owner/operator of a proposed CCR surface impoundment of how adverse geologic and hydrologic conditions may be altered or compensated for via surface water drainage diversion, underdrains, sumps, and other structural components. All alterations of the site shall be detailed in the plans. Precipitation, evapotranspiration, and climatological conditions shall be considered in site selection and design.

(5) Design.

(A) Plans, addendums, as-built drawings, or other documents which describe the design, construction, operation, or closure of a CCR surface impoundment or which request a design modification for the CCR surface impoundment shall:

1. Be prepared, sealed, and signed by the professional engineer and submitted to the department for review and approval;

2. Contain a minimum of a one hundred foot (100')-buffer zone between the CCR surface impoundment operations and any property line(s) or any right(s) of way of adjoining road(s) when the property line(s) is inside the right(s) of way to provide for assessment and/or remedial actions;

3. Consider precipitation, evapotranspiration, and climatological conditions in site selection and design;

4. Include all computer models used in the design and list the limitations and assumptions of each model;

5. Include stability analyses for all stages of construction, as well as all liner and leachate system components, and on all final cover system components, include an evaluation of the effect of waste settlement on the final cover system components, side slope liner system components, and surface water management system components;

6. Perform settlement and bearing capacity analyses on the in-place foundation material beneath the disposal area;

7. Analyze the effect of foundation material settlement on the liner and leachate collection systems;

8. Analyze leachate collection pipe material and drainage media to demonstrate that these components possess structural strength to support maximum loads imposed by overlying waste materials and equipment; and

9. Include phase development drawings.

(B) Liner system requirement. A composite liner shall be placed on all surfaces to minimize the migration of leachate from the CCR surface impoundment. A composite liner shall be required at all CCR surface impoundments applying for a construction permit after the effective date of this rule that includes:

1. A composite liner must consist of two (2) components: the upper component consisting of, at a minimum, a 30-mil geomembrane liner (GM), and the lower component consisting of at least a two-foot (2') layer of compacted soil with a hydraulic conductivity of no more than $1 \times 10^{-7}$ centimeters per second (cm/sec). GM components consisting of high-density polyethylene (HDPE) must be at least 60-mil thick. The GM or upper liner component must be installed in direct and uniform contact with the compacted soil or lower liner component. The compacted soil liner component at a minimum shall be—

A. Constructed of six to eight-inch (6 - 8") lifts;

B. Compacted to ninety-five percent (95%) of standard Proctor density with the moisture content between optimum moisture content and four percent (4%) above the optimum moisture content, or within other ranges of density and moisture such that are shown to provide for the liner to have a hydraulic conductivity no more than $1 \times 10^{-7}$ cm/sec.;

C. Protected from the adverse effects of desiccation or freeze/thaw cycles after construction, but prior to placement of waste;

D. Soils used for this purpose shall meet the following minimum specifications:

(I) Be classified under the Unified Soil Classification Systems as CL, CH, or SC (ASTM Test D2487-11 ASTM International, 100 Barr Harbor, West Conshohocken, PA 19428 Publication date 2011);

(II) Allow more than thirty percent (30%) passage through a No. 200 sieve (ASTM Test D1140-17 ASTM International, 100 Barr Harbor, West Conshohocken, PA 19428 Publication date 2017);

(III) Have a liquid limit equal to or greater than twenty (20) (ASTM Test D4318-17 ASTM International, 100 Barr Harbor, West Conshohocken, PA 19428 Publication date 2017);

(IV) Have a plasticity index equal to or greater than ten (10) (ASTM Test D4318-17 ASTM International, 100 Barr Harbor, West Conshohocken, PA 19428 Publication date 2017);

(V) Have a minimum bottom slope in any direction of flow of at least one percent (1%); and

E. Constructed of materials that:

(I) Have appropriate chemical properties and sufficient strength and thickness to prevent failure due to: pressure gradients (including static head and external hydrogeologic forces), physical contact with the CCR or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(II) Provide appropriate shear resistance of the upper and lower component interface to prevent sliding of the upper component including on slopes;

(III) Are placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

(IV) Are installed to cover all surrounding earth likely to be in contact with the CCR or leachate.

2. A test pad shall be constructed at the site and tested to verify that the proposed soils, construction, and quality assurance/quality control (QA/QC) procedures are adequate to ensure that the soil component of the composite liner system will meet the requirements listed above.

A. Construction and QA/QC procedures to be used during test pad construction shall be described in detail in the approved engineering report, and shall be identical to those proposed for liner construction with the following additions:

(I) At least two (2) laboratory hydraulic conductivity tests shall be performed on undisturbed samples of the completed test pad;

(II) At least one (1) in-situ hydraulic conductivity test (i.e. Boutwell) shall be performed on the completed test pad; and

(III) At least two (2) test pits shall be excavated into the completed test pad to observe inter-lift bonding.

B. If test pad construction and testing shows that the proposed methods are not sufficient to meet the requirements of this rule, a new test pad shall be constructed using revised procedures approved by the department.

C. For phased construction, only one (1) test pad will be required for a particular soil source and type, and equipment type.

D. A final report shall be submitted to the department, which describes in detail the construction and QA/QC procedures, which were used to achieve satisfactory test pad performance.

(I) The report must be approved by the department prior to beginning construction of any portion of the composite liner system in the disposal area.

(II) The report shall serve as guidance for construction of the soil component of the composite liner system.

E. The requirement for a test pad may be waived provided the applicant can demonstrate to the department's satisfaction the construction and QA/QC procedures are identical to those described in the approved engineering report and will result in construction of a liner which meets the requirements of this rule, and the soils proposed for liner construction meet the following minimum specifications:

(I) Have a plasticity index greater than fifteen (15) and less than thirty (30) (ASTM test D4318-17 ASTM International, 100 Barr Harbor, West Conshohocken, PA 19428, Publication date 2017);

(II) Allow more than fifty percent (50%) passage through a number two hundred (200) sieve (ASTM D1140-17 ASTM International, 100 Barr Harbor, West Conshohocken, PA 19428, Publication date 2017); and

(III) Have less than ten percent (10%) by weight particle sizes greater than two (2) millimeters.

(C) Alternative composite liners. An alternative composite liner shall meet all of the following requirements:

1. An alternative composite liner must consist of two (2) components: the upper component consisting of, at a minimum, a 30-mil GM, and a lower component, that is not a geomembrane, with a liquid flow rate no greater than the liquid flow rate of two feet (2') of compacted soil with a hydraulic conductivity of no more than $1 \times 10^{-7}$ cm/sec. GM components consisting of HDPE must be at least 60-mil thick. If the lower component of the alternative liner is compacted soil, the GM must be installed in direct and uniform contact with the compacted soil;

2. The owner/operator must obtain certification from a professional engineer that the liquid flow rate through the lower component of the alternative composite liner is no greater than the liquid flow

rate through two feet (2') of compacted soil with a hydraulic conductivity of $1 \times 10^{-7}$ cm/sec. The hydraulic conductivity for the two feet (2') of compacted soil used in the comparison shall be no greater than $1 \times 10^{-7}$ cm/sec. The hydraulic conductivity of any alternative to the two feet (2') of compacted soil must be determined using recognized and generally accepted methods. The liquid flow rate comparison must be made using Equation 1 of this section, which is derived from Darcy's Law for gravity flow through porous media.

(Eq. 1) $$\frac{Q}{A} = q = k\left(\frac{h}{t} + 1\right)$$

Where,

Q = flow rate (cubic centimeters/second);

A = surface area of the liner (squared centimeters);

q = flow rate per unit area (cubic centimeters/second/squared centimeter);

k = hydraulic conductivity of the liner (centimeters/second);

h = hydraulic head above the liner (centimeters); and

t = thickness of the liner (centimeters); and

3. The alternative composite liner must meet the performance requirements specified in parts (5)(B)1.E.(I) through (IV).

(6) Quality Assurance/Quality Control. The construction, operation, and closure of the CCR surface impoundment shall include QA/QC measures to ensure compliance with approved plans and all applicable federal, state, and local requirements. The owner/operator shall be responsible for ensuring that the QA/QC supervision is conducted by a qualified professional.

(A) Plans shall include a detailed description of the QA/QC testing procedures that will be used for every major phase of construction. The description must include at a minimum, the frequency of inspections, field testing, laboratory testing, equipment to be utilized, the limits for test failure, a description of the procedures to be used upon test failure, and a detailed procedure for the reporting and recording of QA/QC activities and testing results; and

(B) For the following components:

1. Liner. The liner specified by section (5) of this rule shall be constructed in accordance with the approved design specifications. The QA/QC procedures shall include:

A. Evidence that the liner material(s) utilized meet the minimum design specifications;

B. Evidence that field construction techniques are resulting in the minimum design specifications (for example, soil density tests);

C. Evidence that the liner construction is proceeding as designed through regular verification using a predetermined system of horizontal and vertical survey controls; and

D. Oversight of the liner construction and QA/QC procedures by a professional engineer. This shall include reports prepared, or approved, by the professional engineer transmitting the results of the QA/QC procedures and stating that the liner was constructed according to design or describing any deviations from the design.

2. All QA/QC reports shall be reviewed and approved by a professional engineer.

(C) At a minimum QA/QC testing shall include:

1. Testing of each lift of the soil component of the final cover and CCR surface impoundment liner for field density and field moisture once per every ten thousand square feet (10,000 $ft^2$) and providing relatively uniform coverage over the CCR surface impoundment surface;

2. Laboratory hydraulic conductivity testing of the soil used for liner construction once for every five thousand cubic yards (5,000 $yds^3$) of liner constructed;

3. Continuous visual classification of borrow soil during CCR surface impoundment construction by qualified QA/QC inspector(s) or certifying professional engineer; and

4. Measuring the elevations of the final cover and the CCR surface impoundment liner on a maximum spacing of one hundred foot (100') centers and at one hundred foot (100') intervals along each line where a break in slope occurs.

A. CCR surface impoundment liner. Measuring the elevations of the top and bottom of the CCR surface impoundment liner;

B. Final cover. Measuring the elevations of the top and bottom of the CCR surface impoundment cover:

(I) The compacted clay layer; and

(II) The soil layer supporting vegetative growth.

5. For a geomembrane:

A. Nondestructive testing of all seams of the geomembrane in the CCR surface impoundment liner; and

B. Random destructive testing of the seams of the geomembrane liner in the CCR surface impoundment liner on an average frequency of at least one (1) every five hundred (500) linear feet of seams.

6. All testing shall be performed under the direction of qualified QA/QC inspectors for every major phase of construction.

(7) Structural integrity criteria for new and existing CCR surface impoundments.

(A) Periodic hazard potential classification assessments. The owner/operator of the CCR surface impoundment must submit the initial and conduct periodic hazard potential classification assessments no less than every five (5) years. The owner/operator must document both the classification of, and basis for, each CCR surface impoundment as either a high hazard, significant hazard, or a low hazard potential CCR surface impoundment.

(B) Emergency Action Plan (EAP).

1. For CCR surface impoundments categorized as either a high hazard or a significant hazard potential CCR surface impoundment, the owner/operator must prepare, maintain, and amend as necessary a written EAP in the operating record. At a minimum, the EAP must:

A. Define the events or circumstances involving the CCR surface impoundment that represent a safety emergency, along with a description of the procedures that will be followed to detect a safety emergency in a timely manner;

B. Define responsible persons, their respective responsibilities, and notification procedures in the event of a safety emergency involving the CCR surface impoundment;

C. Provide contact information of emergency responders;

D. Document an annual face-to-face meeting or exercise between representatives of the owner/operator of the CCR surface impoundment and local emergency responders;

E. Include a map which delineates the downstream area which would be affected in the event of a CCR surface impoundment failure and a physical description of the CCR surface impoundment.

2. Amendment of the plan.

A. The owner/operator must amend the written EAP whenever there is a change in conditions that would substantially affect the EAP in effect.

B. The written EAP must be evaluated, at a minimum, every five (5) years to ensure the information required in paragraph (7)(B)1. is accurate.

(C) Changes in hazard potential classification.

1. If during a periodic hazard potential assessment, the owner/operator determines that the CCR surface impoundment high hazard or a significant hazard potential classification no longer applies, then the written EAP requirements no longer apply.

2. If a low hazard potential CCR surface impoundment is properly re-classified as either a high hazard potential or significant hazard potential CCR surface impoundment, then the owner/operator must prepare a written EAP for the CCR surface impoundment within six (6) months of completing such periodic hazard potential assessment.

(D) Periodic structural stability assessments. The owner/operator of the CCR surface impoundment must submit the initial and conduct periodic structural stability assessments and document whether the

design, construction, conduct operation, and maintenance of the CCR surface impoundment is consistent with recognized and generally accepted good engineering practices for the maximum volume of CCR wastewater which can be impounded therein. The assessment must, at a minimum, document whether the CCR surface impoundment has been designed, constructed, operated, and maintained with—

1. Stable foundations and abutments;

2. Adequate slope protection to protect against surface erosion, wave action, and adverse effects of sudden drawdown;

3. Dikes mechanically compacted to a density sufficient to withstand the range of loading conditions in the CCR surface impoundment;

4. Vegetated slopes of dikes and surrounding areas sufficient to prevent or mitigate erosion, except for slopes which have an alternate form or forms of slope protection;

5. A single spillway or a combination of spillways. The combined capacity of all spillways must be designed, constructed, operated, and maintained to adequately manage flow during and following the peak discharge from a one hundred (100)-year, one thousand (1,000)-year or probable maximum flood event, depending upon the CCR surface impoundment's hazard classification;

6. Spillways that are either—

A. Of non-erodible construction and designed to carry sustained flows; or

B. Earth or grass-lined and designed to carry short-term, infrequent flows at non-erosive velocities where sustained flows are not expected.

7. Spillways with a combined capacity that adequately manages flow during and following the peak discharge from a:

A. Probable maximum flood (PMF) for a high hazard potential CCR surface impoundment;

B. One thousand (1,000)-year flood for a significant hazard potential CCR surface impoundment; or

C. One hundred (100)-year flood for a low hazard potential CCR surface impoundment;

8. Hydraulic structures underlying the base of the CCR surface impoundment or passing through the dike of the CCR surface impoundment that maintain structural integrity and are free of significant deterioration, deformation, distortion, bedding deficiencies, sedimentation, and debris which may negatively affect the operation of the hydraulic structure; and

9. For CCR surface impoundments with downstream slopes which can be inundated by the pool of an adjacent water body, such as a river, stream or lake, downstream slopes that maintain structural stability during low pool of the adjacent water body or sudden drawdown of the adjacent water body.

10. The periodic assessment must identify any structural stability deficiencies associated with the CCR surface impoundment in addition to recommending corrective measures. If a deficiency or a release is identified during the periodic assessment, the owner/operator of the CCR surface impoundment must remedy the deficiency or release as soon as feasible and prepare documentation detailing the corrective measures taken.

(E) Periodic safety factor assessments. The owner/operator must submit the initial and conduct periodic safety factor assessments no less than every five (5) years for each CCR surface impoundment and document whether the calculated factors of safety for each CCR surface impoundment achieve the minimum safety factors specified for the critical cross section of the embankment anticipated to be the most susceptible to structural failure based on appropriate engineering considerations, including loading conditions. The safety factor assessments must be supported by appropriate engineering calculations. The calculated static factor of safety under the long-term, maximum storage pool loading condition must equal or exceed 1.50.

1. The calculated static factor of safety under the maximum surcharge pool loading condition must equal or exceed 1.40.

2. The calculated seismic factor of safety must equal or exceed 1.00.

3. For dikes constructed of soils that have susceptibility to liquefaction, the calculated liquefaction factor of safety must equal or exceed 1.20.

(F) Inflow design flood control system plan. The owner/operator must design, construct, operate an initial, and maintain a periodic inflow design flood control system plan no less than every five (5) years for each CCR surface impoundment that:

1. Adequately manages flow into the CCR surface impoundment during and following the peak discharge of the inflow design flood.

2. Adequately manages flow from the CCR surface impoundment to collect and control the peak discharge resulting from the inflow design flood.

3. The inflow design flood is—

A. For a high hazard potential CCR surface impoundment;

B. For a significant hazard potential CCR surface impoundment;

C. For a low hazard potential CCR surface impoundment; or

D. For an incised CCR surface impoundment, the twenty-five (25)-year flood.

(8) Survey Control. Benchmarks, horizontal controls, and boundary markers shall be established and maintained by a registered land surveyor to check and mark the location and elevations of the CCR surface impoundment ensuring compliance with design plans, phasing plans, and applicable conditions within the approved construction permit. At a minimum, a survey of the entire permitted acreage shall be conducted in accordance with the current Missouri Standards for Property Boundary Surveys, 2 CSR 90-60, and identify the permanent monument used as a benchmark. All site information must be reported in the State Plane Coordination System.

(9) Run-on and Run-off Controls. All Water Protection Program permits and approvals necessary to comply with requirements of the Missouri Clean Water Law and corresponding rules shall be obtained from the department.

(A) The owner/operator of an existing or new CCR surface impoundment or any lateral expansion must design, construct, operate, and maintain—

1. A run-on control system to prevent flow onto the active portion of the CCR surface impoundment during the peak discharge from a twenty-four (24)-hour, twenty-five (25)-year storm; and

2. On-site drainage, collection, and control structures and channels shall be designed to accommodate at a minimum the stormwater volume from a twenty-four (24)-hour, twenty-five (25)-year storm. The engineering calculations and assumptions shall be included and explained in the engineering report submitted to the department.

(B) The quantity of water coming in contact with solid waste shall be minimized by the daily operational practices. Water, which comes in contact with the waste, shall be managed as leachate in accordance with the approved plans. Stormwater runoff from the CCR surface impoundment shall be controlled on-site and not be allowed to discharge off the CCR surface impoundment property or discharge into the waters of the state, except in accordance with the approved plans and the Missouri Clean Water Law and corresponding rules.

(10) Groundwater Monitoring.

(A) The owner/operator of a CCR surface impoundment shall implement a groundwater monitoring program capable of determining the impact on the quality of groundwater underlying the CCR surface impoundment. The downgradient monitoring system must be installed at the relevant point of compliance specified by the department. When physical obstacles preclude installation of groundwater monitoring wells at the relevant point of compliance, the downgradient monitoring system may be installed at the closest practicable distance hydraulically downgradient specified by the department that ensures detection of groundwater contamination in the uppermost

aquifer.

1. All CCR surface impoundments permitted after the effective date of this rule must be in compliance with all groundwater monitoring requirements of this section.

2. All CCR surface impoundments constructed and operated prior to the effective date of this rule, but that did not certify closure prior to October 19, 2015, must comply with this section.

3. The owner/operator of a CCR surface impoundment shall establish the potential for migration of fluid generated by the CCR surface impoundment into the groundwater by an evaluation of—

A water balance of precipitation, evapotranspiration, runoff, and infiltration; and

B. At a minimum, the following characteristics:

(I) Geologic materials;

(II) Description of soil and bedrock to a depth adequate to allow evaluation of water quality protection provided by the soil and bedrock;

(III) Groundwater elevation;

(IV) Proposed separation between the lowest point of the lowest cell and the maximum water table elevation;

(V) Proximity of the CCR surface impoundment to water supply wells or surface water;

(VI) Rate and direction of groundwater flow; and

(VII) Current and projected use of water resources in the potential zone of influence of the CCR surface impoundment.

4. Groundwater monitoring wells shall be installed based upon site specific technical information that considers the following when determining the number, spacing, and depths of monitoring systems:

A. Aquifer thickness, groundwater flow rate, groundwater flow direction including seasonal and temporal fluctuations in groundwater flow; and

B. Saturated and unsaturated geologic units and fill materials overlying the uppermost aquifer, materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer including, but not limited to, thicknesses, stratigraphy, lithology, hydraulic conductivities, and porosities.

5. Groundwater monitoring well locations shall be based on site specific technical information and be capable of yielding groundwater samples for analysis, effectively monitor the site, and shall consist of at least one (1) well installed hydraulically upgradient; that is, in the direction of increasing static head from the CCR surface impoundment and at least three (3) wells installed hydraulically downgradient; that is, in the direction of decreasing hydraulic head. The numbers, locations, and depths shall be based on site-specific technical information and be sufficient to yield groundwater samples that:

A. Represents background water quality in the groundwater upgradient of the CCR surface impoundment;

B. Detect any significant amounts of fluids generated by the CCR surface impoundment that migrate from the CCR surface impoundment to the groundwater; and

C. Monitor all saturated zones down to and including the uppermost aquifer.

6. All monitoring wells shall be—

A. Designed, constructed, developed, and decommissioned in accordance with 10 CSR 23-4;

B. Designed and installed under the observation and supervision of a qualified groundwater scientist, who certifies installation, and then approved by the department; and

C. Operational prior to the acceptance of wastes, unless other arrangements are approved by the department.

(B) Sampling and reporting.

1. Each groundwater monitoring program must include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide an accurate representation of groundwater quality at monitoring wells installed in compliance with this section. The owner/operator must submit the sampling and analysis program to the department for approval. The program must include procedures and techniques for:

A. Monitoring well maintenance;

B. Monitoring well redevelopment;

C. Monitoring well depth measurement and hydraulic levels;

D. Monitoring well purging and sampling utilizing dedicated equipment;

E. Equipment calibration;

F. Decontamination and field blanks;

G. Sample collection;

H. Sample preservation;

I. Sample labeling;

J. Sample handling;

K. Field measurements;

L. Field documentation;

M. Chain of custody control;

N. Sample shipment;

O. Analytical procedures;

P QA/QC control—field and laboratory; and

Q. Statistical testing strategy for each parameter's concentrations.

2. Each groundwater monitoring program shall include sampling and analytical methods that are appropriate for groundwater sampling and that accurately measure hazardous constituents and other monitoring parameters in groundwater samples. Analysis shall be performed on unfiltered samples.

3. The owner/operator shall determine the rate and direction of groundwater flow each time groundwater is sampled. Groundwater elevations in wells that monitor the same CCR surface impoundment shall be measured within a period of time short enough to avoid temporal variations in groundwater flow, which could preclude an accurate determination of groundwater flow rate and direction.

4. Each groundwater monitoring program shall include: a map, aerial image, or diagram showing the CCR surface impoundment and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers that are part of the groundwater monitoring program for the CCR surface impoundment.

5. Suspension of groundwater monitoring requirements.

A. The department may suspend or modify in whole or in part for up to ten (10) years the groundwater monitoring requirements for a CCR surface impoundment if the owner/operator provides written documentation that there is no potential for risk to human health or the environment or migration of the constituents listed in Appendices I and II to this section during the active life of the CCR surface impoundment and the post-closure care period. In making this decision to suspend groundwater monitoring requirements in whole or in part and in making remedy decisions, the department may consider the impact of activity and use limitations that have been placed on the property and any affected off-site area. This demonstration must be certified by a qualified professional engineer and approved by the department, and must be based upon—

(I) Site-specific field collected measurements, sampling, and analysis of physical, chemical, and biological processes affecting contaminant fate and transport; and

(II) Contaminant fate and transport predictions that maximize contaminant migration and consider impacts on potential receptors.

(C) Background monitoring. The owner/operator shall establish background groundwater quality for each of the monitoring parameters or constituents required in Appendix I and Appendix II. To establish background, a minimum of eight (8) samples of statistically independent sample data shall be obtained and analyzed from all monitoring wells. Additional background samples may be required based upon the statistical methodology used.

(D) Detection monitoring.

1. The owner/operator shall obtain and analyze water samples from the groundwater monitoring wells during the months of May and November of each calendar year for Appendix I constituents

unless an alternative schedule is approved by the department.

2. The water level in each well shall be measured at the time the sample is taken.

3. The sample results must be submitted electronically in a format specified by the department, and any results of statistical analysis determining a statistically significant increase (SSI) for any parameter shall be submitted to the department in one (1) report within ninety (90) days of when samples are collected, unless the department approves an alternative schedule.

4. In the case of all detection monitoring requirements previously listed, the department may specify an appropriate alternative frequency for repeated sampling and analysis during the active life of the CCR surface impoundment, including during the closure and post-closure periods. The alternative frequency during the active life including closure shall be no less than annual. The alternative frequency shall be based on consideration of the following factors:

A. Lithology of the aquifer and unsaturated zone;

B. Hydraulic conductivity of the aquifer and unsaturated zone;

C. Groundwater flow rates;

D. Minimum distance between the upgradient edge of the CCR surface impoundment and the downgradient monitoring well screen (minimum distance of travel); and

E. Resource value of the aquifer.

5. If the owner/operator determines, pursuant to subsection (10)(E), that there is a SSI over background for one or more of the constituents listed in Appendix I, the owner/operator:

A. Must, within fourteen (14) days of this finding, notify the department indicating which constituents have shown statistically significant changes from background levels; and

B. Must establish an assessment monitoring program meeting the requirements of subsection (10)(F) within ninety (90) days except as provided for in subparagraph (10)(D)6.

6. May demonstrate that a source other than the CCR surface impoundment caused the contamination or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. A report documenting this demonstration must be certified by a qualified groundwater scientist and submitted to the department for review and approval. If a successful demonstration is made and documented, the owner/operator may continue detection monitoring as specified in this subsection. If, after ninety (90) days, a successful demonstration is not made, the owner/operator must initiate an assessment monitoring program as specified in subsection (10)(F).

(E) Statistical method. The owner/operator shall specify one (1) or more statistical method(s) to be used in evaluating groundwater monitoring data for each monitoring constituent.

1. The statistical method used to evaluate groundwater monitoring data shall be appropriate for the distribution of the concentration data for the chemical parameters or hazardous constituents and approved by the department. If the distribution of the concentration data for the chemical parameters or hazardous constituents is shown by the owner/operator to be inappropriate for a normal data distribution theory test, then the data should be transformed or a distribution-free (nonparametric) theory test should be used. If the concentration data distributions for the constituents of each well differ, more than one (1) statistical method will be needed.

2. If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentration or a groundwater protection standard, as defined below in paragraph (10)(F)7., the test shall be done at a Type I error rate no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experiment-wide error rate for each testing period shall be no less than 0.05, however, the Type I error rate of no less than 0.01 for individual well comparisons shall be maintained. This performance standard does not apply to tolerance intervals, prediction intervals, or control charts.

3. If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter values shall be protective of human health and the environment. The selection of this method shall be determined after considering the number of samples in the background database, the data distribution, and the range of the concentration values for each constituent of concern.

4. If a confidence interval, tolerance interval, or a prediction interval is used to evaluate groundwater monitoring data, then the level of confidence for each interval, and the percentage of the population that each interval contains, shall be protective of human health and the environment. Selection of one (1) or more of these methods shall be determined after considering the number of samples in the background database, the data distribution, and the range of the concentration values for each constituent of concern.

5. The statistical method shall account for data below the limit of detection with one (1) or more statistical procedures that are protective of human health and the environment. Any practical quantization limit that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

6. If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

(F) Response to statistical analysis/assessment monitoring.

1. Assessment monitoring is required whenever a SSI over background levels has been detected for one (1) or more of the constituents listed in Appendix I.

2. Within ninety (90) days of triggering an assessment monitoring program, and annually thereafter, the owner/operator of the CCR surface impoundment must sample and analyze the groundwater for all constituents listed in Appendix II of this rule. The number of samples collected and analyzed for each well during each sampling event must be consistent with subsection (10)(B), and must account for any unique characteristics of the site, but must include at least one (1) sample from each well.

3. The owner/operator of a CCR surface impoundment may submit to the department for review and approval a demonstration for an alternative monitoring frequency for repeated sampling and analysis for constituents listed in Appendix II during the active life and the post-closure care period based on the availability of groundwater. If there is not adequate groundwater flow to sample wells semiannually, the alternative frequency shall be no less than annual. The need to vary monitoring frequency must be evaluated on a site-specific basis. The demonstration must be supported by, at a minimum, the following information:

A. Information documenting the need for less frequent sampling. The alternative frequency must be based on consideration of the following factors:

(I) Lithology of the aquifer and unsaturated zone;

(II) Hydraulic conductivity of the aquifer and unsaturated zone; and

(III) Groundwater flow rates;

B. Information documenting that the alternative frequency will be no less effective in ensuring that any leakage from the CCR surface impoundment will be discovered within a timeframe that will not materially delay the initiation of any necessary remediation measures; and

C. The owner/operator must obtain a certification from a professional engineer and submit it to the department for review and approval, stating that the demonstration for an alternative groundwater sampling and analysis frequency meets the requirements of this section. The owner/operator must include the demonstration providing the basis for the alternative monitoring frequency and the certification by a professional engineer in the annual groundwater monitoring and corrective action report required by section (10).

4. After obtaining the results from the initial and subsequent

sampling events required in paragraph (10)(F)2., the owner/operator must—

A. Within ninety (90) days of obtaining the results, and on at least a semiannual basis thereafter, resample all wells that were installed pursuant to the requirements of section (10), conduct analyses for all constituents in Appendix I and for those constituents in Appendix II that are detected in response to subparagraph (10)(F)4.B. submit the sampling and analysis to the department for review and approval and record their concentrations in the facility operating record. The number of samples collected and analyzed for each background well and downgradient well during subsequent semiannual sampling events must be consistent with subsection (10)(D), and must account for any unique characteristics of the site, but must include at least one (1) sample from each background and downgradient well;

B. Establish groundwater protection standards for all constituents detected pursuant to paragraph (10)(F)2. or subparagraph (10)(F)4.A. The groundwater protection standards must be established in accordance with paragraph(10)(F)8.; and

C. Include the recorded concentrations required by paragraph (10)(F)8. identify the background concentrations established under subsection (10)(C), and identify the groundwater protection standards established under subparagraph (10)(F)4.B. in the annual groundwater monitoring and corrective action report. The owner/operator must submit the annual groundwater monitoring and corrective action report to the department for review and approval.

5. If the concentrations of all constituents listed in Appendices I and II are shown to be at or below background values, using the statistical procedures in subsection (10)(E), for two (2) consecutive sampling events, the owner/operator may return to detection monitoring of the CCR surface impoundment. The owner/operator must prepare and submit a notification to the department for review and approval requesting that detection monitoring resume for the CCR surface impoundment. The owner/operator has completed the notification when the approved notification is placed in the facility's operating record.

6. If the concentrations of any constituent in Appendices I and II are above background values, but all concentrations are below the groundwater protection standard established under paragraph (10)(F)8. using the statistical procedures in subsection (10)(E), the owner/operator must continue assessment monitoring in accordance with this section.

7. If one (1) or more constituents in Appendix II of this rule are detected at statistically significant levels above the groundwater protection standard established under paragraphs (10)(F)4. and 8. in any sampling event, the owner/operator must prepare a notification identifying the constituents in Appendix II to this rule that have exceeded the groundwater protection standard. The owner/operator has completed the notification when the notification is submitted to the department for approval and the approved notification is placed in the facility's operating record. The owner/operator of the CCR surface impoundment also must—

A. Characterize the nature and extent of the release and any relevant site conditions that may affect the remedy ultimately selected. The characterization must be sufficient to support a complete and accurate assessment of the corrective measures necessary to effectively clean up all releases from the CCR surface impoundment pursuant to section (11). Characterization of the release includes the following minimum measures:

(I) Install additional monitoring wells necessary to define the contaminant plume(s);

(II) Collect data on the nature and estimated quantity of material released including specific information on the constituents listed in Appendix II of this rule and the levels at which they are present in the material released;

(III) Install at least one (1) additional monitoring well at the facility boundary in the direction of contaminant migration and sample this well in accordance with subparagraph (10)(F)4.A.; and

(IV) Sample all wells in accordance with subparagraph (10)(F)4.A. to characterize the nature and extent of the release;

B. Notify all persons who own the land or reside on the land that directly overlies any part of the plume of contamination if contaminants have migrated off site if indicated by sampling of wells in accordance with subparagraph (10)(F)7.A. The owner/operator has completed the notifications when they are submitted to the department for approval and the approved notification is placed in the facility's operating record;

C. Within ninety (90) days of finding that any of the constituents listed in Appendix II to this rule have been detected at a statistically significant level exceeding the groundwater protection standards must either—

(I) Initiate an assessment of corrective measures as required by subsection (11)(A); or

(II) Demonstrate that a source other than the CCR surface impoundment caused the contamination, or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Any such demonstration must be supported by a report that includes the factual or evidentiary basis for any conclusions and must be certified to be accurate by a professional engineer. If a successful demonstration is made to the department, the owner/operator must continue monitoring in accordance with the assessment monitoring program pursuant to this section, and may return to detection monitoring if the constituents in Appendices I and II of this rule are at or below background as specified in paragraph (10)(F)5. The owner/operator must also include the demonstration in the annual groundwater monitoring and corrective action report submitted to the department for review and approval in addition to the certification by a professional engineer; and

D. If a successful demonstration has not been made at the end of the ninety (90)-day period provided by part (10)(F)7.C.(II), initiate the assessment of corrective measures requirements under subsection (11)(A).

E. If an assessment of corrective measures is required under subsection (11)(A). by either part (10)(F)7.C.(I) or subparagraph (10)(F)7.D., then the CCR surface impoundment is subject to the closure requirements under 40 CFR 257.101(a) to retrofit or close. In addition, the owner/operator must prepare a notification stating that an assessment of corrective measures has been initiated.

8. The owner/operator of the CCR surface impoundment must establish a groundwater protection standard for each constituent in Appendix II of this rule detected in the groundwater. The groundwater protection standard shall be—

A. For constituents for which a maximum contaminant level (MCL) has been established pursuant to the National Primary Drinking Water Regulations 40 CFR 141.62 (June 29, 2004) and 40 CFR 141.66 (December 7, 2000), the MCL for that constituent;

B. For the following constituents:

(I) Cobalt 6 micrograms per liter ($\mu$g/l)

(II) Lead 15 $\mu$g/l

(III) Lithium 40 $\mu$g/l

(IV) Molybdenum 100 $\mu$g/l; or

C. For constituents for which the background level is higher than the levels identified under subparagraphs (10)(F)8.A. and B., use the background concentration.

(11) Corrective Action. The owner/operator of a CCR surface impoundment that shows one (1) or more constituents listed in Appendix II of this rule being detected at levels above the groundwater protection standard as established under paragraph (10)(F)8. shall proceed with corrective action measures outlined in subsections (11)(A) through (C) below.

(A) Assessment of corrective measures.

1. Within ninety (90) days of finding that any of the constituents listed in Appendix II of this rule have been detected at a statistically significant level exceeding the groundwater protection standards listed under paragraphs (10)(F)4 and 8., or immediately upon detection

of a release from a CCR surface impoundment, the owner/operator shall initiate an assessment of corrective measures to prevent further releases, to remediate any releases, and to restore the affected area(s) to original conditions. This assessment of corrective measures shall be completed within ninety (90) days, unless the owner/operator demonstrates the need for additional time to complete the assessment of corrective measures due to site-specific conditions or circumstances. The owner/operator must obtain a certification from a professional engineer attesting that the demonstration is accurate. The ninety (90)-day deadline to complete the assessment of corrective measures may be extended by the department for no longer than sixty (60) days. The owner/operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by subsection (10)(D), in addition to the certification by a professional engineer. Further, a report describing the assessment of corrective measures shall be submitted to the department for review and approval.

2. The owner/operator shall continue to monitor in accordance with the assessment monitoring program as specified in paragraph (10)(F)2.

3. The assessment shall include an analysis of the effectiveness of potential corrective measures in meeting all of the requirements and objectives of the remedy as described in this rule, addressing at least the following:

A. The performance, reliability, ease of implementation, and potential impacts of appropriate potential remedies, including safety impacts, cross-media impacts, and control of exposure to any residual contamination;

B. The time required to begin and complete the remedy; and

C. The institutional requirements such as state or local permit requirements or other environmental or public health requirements that may substantially affect implementation of the remedy(ies).

4. The owner/operator must place the completed assessment of corrective measures in the facility's operating record and submit to the department for review and approval. The assessment has been completed when it is approved by the department.

5. The owner/operator shall discuss the results of the corrective measures assessment at least thirty (30) days prior to the selection of remedy, in a public meeting with interested and affected parties.

(B) Selection of remedy.

1. The department may determine that remediation of a release of a constituent listed in Appendix II from a CCR surface impoundment is not necessary if the owner/operator demonstrates to the satisfaction of the department that—

A. The groundwater is additionally contaminated by substances that have originated from a source other than a CCR surface impoundment and those substances are present in concentrations such that cleanup of the release from the CCR surface impoundment would provide no significant reduction in risk to actual or potential receptors;

B. The constituent(s) is present in groundwater that—

(I) Is not currently or reasonably expected to be a source of drinking water; and

(II) Is not hydraulically connected with a potential drinking water source to which the constituent(s) is migrating or are likely to migrate in a concentration(s) that would exceed the groundwater protection standards established under paragraph (10)(F)8.;

C. Remediation of the release(s) is technically impracticable; or

D. Remediation results in unacceptable cross-media impacts.

2. Notwithstanding a determination by the department pursuant to paragraph (11)(B)1., the department may require the owner/operator to undertake source control measures or other measures (including closure if triggered) that may be necessary to eliminate or minimize further releases to the groundwater, to prevent exposure to the groundwater, or to remediate the groundwater to concentrations that are technically feasible and significantly reduce threats to human health or the environment.

3. Based on the results of the corrective measures assessment conducted in accordance with subsection (11)(A), the owner/operator must, as soon as feasible, select a remedy that, at a minimum, meets the standards listed in paragraph (11)(B)4. This requirement applies to, not in place of, any applicable standards under the Occupational Safety and Health Act. The owner/operator must prepare a semiannual report describing the progress in selecting and designing the remedy. Upon selection of a remedy, the owner/operator must prepare a final report describing the selected remedy and how it meets the standards specified in paragraph (11)(B)4. and submit this report to the department for review and approval. The owner/operator must obtain a certification from a professional engineer that the remedy selected meets the requirements of this section. The owner/operator shall submit the final report to the department within fourteen (14) days of selecting a proposed remedy. The report is complete once the report is approved by the department and the owner/operator has placed it in the operating record.

4. Remedies shall—

A. Be protective of the public health and the environment;

B. Attain the groundwater protection standard specified in paragraph (10)(F)8.;

C. Control the source(s) of releases so as to reduce or eliminate, to the maximum extent feasible, further releases of constituents listed in Appendix II of this rule into the environment that may pose a threat to human health or the environment;

D. Remove from the environment as much of the contaminated material that was released from the CCR surface impoundment as is feasible, taking into account factors such as avoiding inappropriate disturbance of sensitive ecosystems; and

E. Comply with standards for management of wastes as specified in paragraph (11)(C)3.

5. In selecting a remedy that meets the standards of paragraph (11)(B)4. the owner/operator, and in approving a remedy, the department, shall consider the following evaluation factors:

A. The long- and short-term effectiveness and protectiveness of the potential remedy, along with the degree of certainty that the remedy will prove successful based on consideration of the following:

(I) Magnitude of reduction of existing risks;

(II) Magnitude of residual risks in terms of likelihood of further releases due to waste remaining following implementation of the proposed remedy;

(III) The type and degree of long-term management required, including monitoring, operation, and maintenance;

(IV) Short-term risks that might be posed to the community, workers or the environment during implementation of the remedy, including potential threats to human health and the environment associated with excavation, transportation, redisposal, or containment;

(V) Time until full protection is achieved;

(VI) Potential for exposure of humans and environmental receptors to remaining wastes, considering the potential threat to human health and the environment associated with excavation, transportation, redisposal, or containment;

(VII) Long-term reliability of the engineering and institutional controls; and

(VIII) Potential need for replacement of the remedy;

B. The effectiveness of the remedy in controlling the source to reduce further releases based on consideration of the following factors:

(I) The extent to which containment practices will reduce further releases; and

(II) The extent to which treatment technologies may be used;

C. The ease or difficulty of implementing the potential remedy(ies) based on consideration of the following types of factors:

(I) Degree of difficulty associated with constructing the remedy technology;

(II) Expected operational reliability of the proposed technologies;

(III) Need to coordinate with and obtain necessary approvals and permits from other agencies;

(IV) Availability of necessary equipment and specialists; and

(V) Available capacity and location of needed treatment, storage, and disposal services; and

D. The degree to which community concerns are addressed by the proposed remedy(ies).

6. The owner/operator shall specify as part of the proposed remedy a schedule(s) for initiating, implementing, and completing remedial activities. This schedule must require the completion of remedial activities within a reasonable period of time taking into consideration the factors set forth in subparagraphs (11)(B)6.A. through H. The owner/operator shall consider the following factors in determining, and the department will consider the following factors in approving, the schedule of remedial activities:

A. Extent and nature of contamination as determined by the characterization required pursuant to subsection (10)(F);

B. Reasonable probabilities of remedial technologies in achieving compliance with groundwater protection standards established in paragraph (10)(F)8. and other objectives of the remedy;

C. Availability of treatment or disposal capacity for CCR managed during implementation of the remedy;

D. Desirability of utilizing technologies that are not currently available, but which may offer significant advantages over already available technologies in terms of effectiveness, reliability, safety, or ability to achieve remedial objectives;

E. Potential risks to human health and the environment from exposure to contamination prior to completion of the remedy;

F. Resource value of any affected aquifer including:

(I) Current and future uses;

(II) Proximity and withdrawal rate of users;

(III) Groundwater quantity and quality;

(IV) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to the waste constituent;

(V) The hydrogeologic characteristic of the facility and surrounding land; and

(VI) The availability of alternative water supplies;

G. Practicable capability of the owner/operator; and

H. Other relevant factors.

(C) Implementation of the corrective action program.

1. If required to select a remedy pursuant to subsection (11)(B), the owner/operator must initiate remedial activities within ninety (90) days. Based on the schedule established pursuant to subsection (11)(B) for initiation, implementation, and completion of remedial activities the owner/operator shall—

A. Establish and implement a corrective action groundwater monitoring program that—

(I) At a minimum, meets the requirements of an assessment monitoring program of subsection (11)(F);

(II) Indicates the effectiveness of the corrective action remedy; and

(III) Demonstrates compliance with groundwater protection standards pursuant to paragraph (10)(F)8.;

B. Implement the corrective action remedy selected under subsection (11)(B); and

C. Take any interim measures necessary, any measures determined to be necessary by the department, or both, to reduce the contaminants from leaching from the CCR surface impoundment, and/or potential exposures to human or ecological receptors. Interim measures shall, to the greatest extent feasible, be consistent with the objectives of and contribute to the performance of any remedy that may be required pursuant to subsection (11)(B). The following factors shall be considered by an owner/operator, and will be considered by the department, in determining whether interim measures are necessary:

(I) Time required to develop and implement a final remedy;

(II) Actual or potential exposure of nearby populations or environmental receptors to hazardous constituents listed in Appendix II;

(III) Actual or potential contamination of drinking water supplies or sensitive ecosystems;

(IV) Further degradation of the groundwater that may occur if remedial action is not initiated expeditiously;

(V) Weather conditions that may cause hazardous constituents to migrate or be released;

(VI) Potential for exposure to any of the constituents listed in Appendix II to this rule as a result of an accident or failure of a container or handling system;

(VII) Risks of fire or explosion, or potential for exposure to hazardous constituents as a result of an accident or failure of a container or handling system; and

(VIII) Other situations that may pose threats to human health and the environment.

2. The department may determine, based on information developed after implementation of the remedy has begun or other information, that compliance with requirements of subsection (11)(B). are not being achieved through the remedy selected. In those cases, the owner/operator shall implement other methods or techniques that could feasibly achieve compliance with the requirements. Remedies selected pursuant to subsection (11)(B) shall be considered complete when:

A. The owner/operator complies for three (3) consecutive years with the groundwater protection standards established pursuant to paragraph (10)(F)8. at all points within the plume of contamination that lie beyond the groundwater monitoring well system established pursuant to section (10);

B. Compliance with the groundwater protection standards established pursuant to paragraph (10)(F)8. has been achieved within the plume of contamination that lies beyond the groundwater monitoring well system following a risk assessment, or at a compliance point otherwise established by the department; and

C. All actions required to complete the remedy have been completed.

3. All CCR that are managed pursuant to a remedy required under subsection (11)(B), or an interim measure required under subparagraph (11)(C)1.C. shall be managed in a manner that complies with all applicable Resource Conservation Recovery Act requirements.

4. Upon completion of the remedy, the owner/operator shall submit a certification to the department within fourteen (14) days after the remedy has been completed in compliance with the requirements of subsection (11)(C). The certification shall be signed by the owner/operator and by a professional engineer prior to review and approval by the department. The report has been completed when it is placed in the operating record after department approval.

5. When, upon completion of the certification, the owner/operator and the department determine that the corrective action remedy has been completed in accordance with the requirements under subsection (11)(C), the owner/operator shall be released from the requirements for financial assurance for corrective action.

(12) Air Quality.

(A) The design, construction, and operation of the CCR surface impoundment shall minimize environmental hazards and shall conform to applicable ambient air quality and source control regulations. Fugitive dust control plan. The owner/operator must prepare and operate in accordance with a fugitive dust control plan as specified below:

1. The fugitive dust control plan must identify and describe measures the owner/operator will use to minimize CCR from becoming airborne at the facility. The owner/operator must select, and include in the fugitive dust control plan, measures that are most

appropriate for site conditions, along with an explanation of how the measures selected are applicable and appropriate for site conditions and periodically assess the effectiveness of the control plan.

2. The fugitive dust control plan must include procedures to emplace CCR as conditioned CCR. Conditioned CCR means wetting CCR with water to a moisture content that will prevent wind dispersal, but will not result in free liquids. In lieu of water, CCR conditioning may be accomplished with an appropriate chemical dust suppression agent approved by the department.

3. Amendment of the plan. The owner/operator must amend the written plan whenever there is a change in conditions that would substantially affect the written plan in effect and submit the revised plan to the department for review and approval.

(13) Aesthetics. The CCR surface impoundment shall be designed and operated at all times in an aesthetically acceptable manner. Wastes that are easily moved by wind shall be covered, as necessary, to prevent becoming airborne and scattered. On-site vegetation should be cleared only as necessary. Natural windbreaks, such as green belts, should be maintained where they will improve the appearance and operation of the CCR surface impoundment. Mining operations for the purpose of removing waste for beneficial reuse shall be conducted in such a manner as to not detract from the appearance of the CCR surface impoundment and receive prior approval from the department. All Water Protection Program permits and approvals necessary to comply with the Missouri Clean Water Law and corresponding rules shall be obtained from the department.

(14) Cover.

(A) Cover shall be applied to: minimize infiltration of precipitation, prevent fugitive dust, and provide final cover as outlined below—

1. The permeability of the final cover system must be less than or equal to the permeability of any bottom liner system or natural subsoils present, or a permeability no greater than $1 \times 10^{-5}$ cm/sec, whichever is less;

2. This final cover consists of component layers, in order from top to bottom, as follows:

A. Six inches (6") of soil capable of sustaining vegetative growth;

B. An infiltration layer that contains a minimum of eighteen inches (18") of earthen material, with a coefficient of permeability of $1 \times 10^{-5}$ cm/sec or less; and

C. Vegetation shall be established within one (1) year of initial seeding or within an alternative schedule approved by the department;

3. The cover system integrity must be maintained throughout the operational and post closure periods;

4. Surface grades and side slopes need to promote maximum runoff, without excessive erosion, and to minimize infiltration. Final side slopes shall not exceed twenty-five percent (25%) unless it has been demonstrated in a detailed slope stability analysis approved by the department that the slopes can be constructed and maintained throughout the entire operational life and post-closure period of the CCR surface impoundment. No active or final slope shall exceed thirty-three and one-third percent (33 1/3%);

5. Procedures to establish and maintain vegetative growth to combat erosion and improve appearance of idle and completed areas. Procedures shall include: seeding rate, fertilizer rate, soil conditioning rate, and provisions for mulching;

6. Procedures to maintain cover integrity, for example, regrading and recovering;

7. Methods for borrow areas to be reclaimed so as to restore aesthetic qualities and prevent excessive erosion;

8. The final slope of the top of the CCR surface impoundment shall have a minimum slope of one percent (1%); and

9. The department may approve the use of an alternative final cover system provided that the owner/operator can demonstrate to the department that the alternative design will be at least equivalent to the final cover system described in this section.

(15) Post-Closure Care Requirements.

(A) Post-closure care maintenance requirements. Following closure of the CCR surface impoundment, the owner/operator must conduct post-closure care for the CCR surface impoundment, which must consist of at least the following:

1. Maintain the integrity and effectiveness of the final cover system, including making repairs to the final cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover;

2. Maintain the integrity and effectiveness of the leachate collection and removal system and operate the leachate collection and removal system in accordance with the approved plans; and

3. Maintain the groundwater monitoring system and monitor the groundwater in accordance with the approved plans.

(B) Post-closure care period.

1. The owner/operator of the CCR surface impoundment must conduct post-closure care for thirty (30) years. However, the post-closure care period may be:

A. Decreased by the department if the owner/operator demonstrates that the reduced period is sufficient to protect human health and the environment and this demonstration is approved by the department; or

B. Increased by the department if determined that the lengthened period is necessary to protect human health and the environment.

2. If at the end of the post-closure care period the owner/operator of the CCR surface impoundment is operating under assessment monitoring then post-closure care shall continue until the owner/operator returns to detection monitoring.

3. Written post-closure plan.

A. Contents of the plan. The owner/operator of a CCR surface impoundment must prepare a written post-closure plan that includes, at a minimum, the information specified below:

(I) A description of the monitoring and maintenance activities required and the frequency at which these activities will be performed;

(II) The name, address, telephone number, and email address of the person or office to contact about the facility during the post-closure care period;

(III) A description of the planned uses of the property during the post-closure period. Post-closure use of the property shall not disturb the integrity of the final cover, liner(s), or any other component of the containment system, or the function of the monitoring systems unless corrective action is necessary as approved by the department; and

(IV) No other disturbance is allowed, unless the owner/operator of the CCR surface impoundment demonstrates that disturbance of the final cover, liner, or other component of the containment system, including any removal of CCR, will not increase the potential threat to human health or the environment. The demonstration must be certified by a professional engineer, and submitted to the department for approval.

B. Amendment of a written post-closure plan. The owner/operator may amend the initial or any subsequent written post-closure plan developed pursuant to approval by the department.

(C) Completion of post closure.

1. No later than sixty (60) days following completion of the post closure care period, the owner/operator of a CCR surface impoundment must submit a notification to the department verifying the post closure care has been completed. The notification must include a certification by a professional engineer verifying that post closure care has been completed in compliance with the post-closure plan specified in this section and 10 CSR 80-2.030.

(16) Safety. The CCR surface impoundment shall be designed, constructed, and operated in a manner so as to protect the health and safety of personnel and others associated with and affected by the operation. Access to the facility must be controlled and appropriate safety equipment required.

(17) Records.

(A) The owner/operator of a CCR surface impoundment shall maintain records and monitoring data as specified by the department in their operating record and file appropriate documents with the county recorder(s) of deeds.

1. Records shall be maintained at the facility site. Records five (5) years old or older may be stored at an alternate site if approved by the department; such stored records must be made available at the CCR surface impoundment upon request of department personnel.

2. An owner/operator with more than one (1) CCR surface impoundment that is subject to the provisions of this rule may comply with the requirements of this section by using a single recordkeeping system provided the system identifies each file by the name of each CCR surface impoundment. The files may be maintained on electronic media accessible by a computer using common software. Records must cover at least the following:

A. Copies of the certifications, notifications, approved plans, and documents;

B. Major operational problems, complaints, and difficulties;

C. Any demonstration, certification, finding, monitoring, testing, or analytical data required under this rule;

D. The current fugitive dust control plan and annual report, as well as dust and litter control efforts;

E. Closure and post-closure care plans and any monitoring, testing, or analytical data; and

F. Records associated with corrective measures.

3. Upon closing of the CCR surface impoundment, the existence of the CCR surface impoundment shall be recorded with the recorder(s) of deeds in the county(ies) where the CCR surface impoundment is located. The owner/operator may request permission from the department to remove the notation from the deed if all wastes are removed from the facility.

A. A survey and plat meeting the requirements of the current Minimum Standards of Property Boundary Survey 2 CSR 90-60 and detailed description of the CCR surface impoundment shall be prepared by a land surveyor. The survey plat and detailed description, at a minimum, shall contain the following information:

(I) The name of the property owner as it appears on the property deed;

(II) The detailed description of the property;

(III) The general types and location of the wastes and the depth(s) of fill within the property; and

(IV) The location of any water monitoring systems, which shall be maintained after closure, and the length of time that these systems are to be maintained.

B. The owner/operator shall—

(I) Obtain approval from the department of the survey plat and detailed description;

(II) Have the plat sealed by a lawful notary public;

(III) File the survey plat and description with the county recorder of deeds within thirty (30) days of department approval; and

(IV) Submit to the department within thirty (30) days of filing, two (2) copies of the sealed and properly recorded survey plat and detailed description showing the recorder of deeds' seal or stamp, the book and page numbers, and the date of filing.

4. The owner/operator of a CCR surface impoundment as a part of closure shall—

A. Execute an easement with the department, which allows the department, its agents or its contractors to enter the premises to complete work specified in the closure plan, to monitor or maintain the solid waste disposal area, or take corrective action during post-closure period; and

B. Submit evidence to the department that a notice and covenant running with the land has been recorded with the recorder of deeds in the county where the CCR surface impoundment is located. The notice and covenant shall specify the following:

(I) That the property has been permitted as a CCR surface impoundment; and

(II) That use of the land in any manner which interferes with closure plans and post-closure plans filed with the department, is prohibited.

(18) Self-Certification.

(A) Existing CCR surface impoundments must, within thirty (30) days of the effective date of this rule or thirty (30) days of request by the department, provide to the department for review and approval a self-certification report verifying compliance with the requirements of subsection (18)(B) and additionally include the following:

1. The name and address of the owner/operator or permitee of the CCR surface impoundment; the name associated with the CCR surface impoundment; and the identification number of the CCR surface impoundment if one has been assigned;

2. The location of the CCR surface impoundment identified on the most recent United States Geological Survey (USGS) seven and one half (7 ½) minute or fifteen (15) minute topographic quadrangle map, or a topographic map of equivalent scale if a USGS map is not available;

3. A statement of the purpose for which the CCR surface impoundment is being used;

4. The name and size in acres of the watershed within which the CCR surface impoundment is located;

5. Describe the groundwater monitoring network and plan and summarize the data obtained;

6. Upon request, provide all groundwater monitoring data in a digital format specified by the department;

7. Provide any initial or interim closure plan, and post-closure plan prepared prior to the effective date of this rule;

8. Identify the groundwater statistical procedure chosen and background values;

9. Identify whether a SSI exists over background values;

10. Identify any planned additional groundwater investigations, including a schedule; and

11. Provide a schedule for future detection or assessment groundwater monitoring. The department may consider all relevant data whether or not it was collected from a groundwater monitoring network installed as a requirement of Title 40 CFR 257 subtitle D.

(B) Certifications. Certifications from a professional engineer, professional or registered geologist, or toxicologist as appropriate shall be submitted to the department certifying for the following technical assessments that:

1. The location restrictions meet the requirements of this rule;

2. The design of the composite liner or alternative composite liner meets the requirements of this rule and the cover system meets the requirements of this rule;

3. The EAP, if required, and any subsequent amendment of the EAP meet the requirements of this rule;

4. The initial and periodic structural stability assessments meet the requirements of this rule;

5. The initial and periodic hazard potential classification and any subsequent periodic classification meet the requirements of this rule;

6. The initial and periodic safety factor assessments meet the requirements of this rule;

7. The initial and periodic inflow design flood control system plans meet the requirements of this rule;

8. The design and construction of the groundwater monitoring system and statistical analysis plan meet the requirements of this rule;

9. The design and construction of the closure and post-closure plan meet the requirements of this rule; and

10. A compiled history of construction for the CCR surface impoundment that to the extent feasible contains—

A. A description of the physical and engineering properties of the foundation and abutment materials on which the CCR surface impoundment is constructed;

B. A statement of the type, size, range, and physical and engineering properties of the materials used in constructing each zone or stage of the CCR surface impoundment, the method of site preparation and construction of each zone of the CCR surface impoundment; and the approximate dates of construction of each successive stage of the CCR surface impoundment;

C. At a scale that details engineering structures and appurtenances relevant to the design, construction, operation, and maintenance of the CCR surface impoundment, detailed dimensional drawings of the CCR surface impoundment, including a plan view and cross sections of the length and width of the CCR surface impoundment, showing all zones, foundation improvements, drainage provisions, spillways, diversion ditches, outlets, instrument locations, and slope protection, in addition to the normal operating pool surface elevation and the maximum pool surface elevation following peak discharge from the inflow design flood, the expected maximum depth of CCR within the CCR surface impoundment, and any identifiable natural or manmade features that could adversely affect operation of the CCR surface impoundment due to malfunction or misoperation;

D. A description of the type, purpose, and location of existing instrumentation.

E. Area-capacity curves for the CCR surface impoundment;

F. A description of each spillway and diversion design features and capacities and calculations used in their determination;

G. The construction specifications and provisions for surveillance, maintenance, and repair of the CCR surface impoundment; and

H. Any record or knowledge of structural instability of the CCR surface impoundment.

(C) Application for department approval and assessment of fees.

1. By October 1, 2019, all owner/operators of existing CCR surface impoundments must submit to the department an application for review and approval of completeness of the reports, data, and assessments required in subsections (18)(A) and (B).

2. The application for review and approval will include the following:

A. A letter from the applicant that includes a list of the existing CCR surface impoundments to be closed pursuant to this rule;

B. A request to the department to review the documents that the owner/operator has certified;

C. Agreement to pay fees as provided by section 260.242, RSMo;

3. Within sixty (60) days of receipt of the application, the department shall issue a letter approving or approving with conditions receipt of a complete application and accepting the CCR surface impoundments into the state review process; and

4. The owner/operator of a CCR surface impoundment shall submit engineering drawings or plans to the department detailing the manner and timing of closure. Such engineering drawings and plans shall be submitted ninety (90) days prior to commencement of closure.

(19) Closure or Retrofit of CCR Surface Impoundments.

(A) Closure of a CCR surface impoundment, or any lateral expansion of a CCR surface impoundment must be completed either by leaving the CCR in place and installing a final cover system or through removal of the CCR and decontamination of the CCR surface impoundment, as described in subsections (19)(B) through (J). Retrofit of a CCR surface impoundment must be completed in accordance with the requirements in subsection (19)(K).

(B) Written closure plan.

1. Content of the plan. The owner/operator of a CCR surface impoundment must prepare a written closure plan that describes the steps necessary to close the CCR surface impoundment at any point during the active life of the CCR surface impoundment consistent with recognized and generally accepted good engineering practices. The written closure plan must include the following information:

A. A narrative description of how the CCR surface impoundment will be closed in accordance with this section;

B. If closure of the CCR surface impoundment will be accomplished through removal of CCR, a description of the procedures to remove the CCR and decontaminate the CCR surface impoundment in accordance with subsection (19)(C);

C. If closure of the CCR surface impoundment will be accomplished by leaving CCR in place, a description of the final cover system, designed in accordance with subsection (19)(D) and the methods and procedures to be used to install the final cover. The closure plan must also discuss how the final cover system will achieve the performance standards specified in subsection (19)(D);

D. An estimate of the maximum inventory of CCR ever on site over the active life of the CCR surface impoundment;

E. An estimate of the largest area of the CCR surface impoundment ever requiring a final cover as required by subsection (19)(D) at any time during the CCR surface impoundment's active life; and

F. A schedule for completing all activities necessary to satisfy the closure criteria in this section, including an estimate of the year in which all closure activities for the CCR surface impoundment will be completed. The schedule should provide sufficient information to describe the sequential steps that will be taken to close the CCR surface impoundment, including identification of major milestones such as coordinating with and obtaining necessary approvals and permits from other agencies, the dewatering and stabilization phases of CCR surface impoundment closure, or installation of the final cover system, and the estimated timeframes to complete each step or phase of CCR surface impoundment closure. When preparing the written closure plan, if the owner/operator of a CCR surface impoundment estimates that the time required to complete closure will exceed the timeframes specified in paragraph (19)(F)1. the written closure plan must include the site-specific information, factors, and considerations that would support any time extension sought under paragraph (19)(F)2.

2. Timeframes for preparing the initial written closure plan.

A. Existing CCR surface impoundments. The owner/operator of the CCR surface impoundment must provide the initial written closure plan prepared pursuant to 40 CFR 257 and placed the plan in the facility's operating record.

B. New CCR surface impoundments and any lateral expansion of a CCR surface impoundment. Prior to construction of a new CCR surface impoundment or lateral expansion of an existing CCR surface impoundment, the owner/operator must prepare and submit for approval to the department an initial written closure plan or amendment to an existing closure plan consistent with the requirements specified in paragraph (19)(B)1.

C. The owner/operator has completed the written closure plan when the plan, including the certification required by paragraph (19)(B)4., has been placed in the facility's operating record and made available to the department upon request.

3. Amendment of a written closure plan.

A. The owner/operator may amend the initial or any subsequent written closure plan developed pursuant to section (19) at any time.

B. The owner/operator must amend the written closure plan whenever:

(I) There is a change in the operation of the CCR surface impoundment that would substantially affect the written closure plan in effect; or

(II) Before or after closure activities have commenced, unanticipated events necessitate a revision of the written closure plan.

C. The owner/operator must amend the closure plan and receive department approval prior to an operational change at the

facility or CCR surface impoundment. If a closure plan requires revisions after closure activities have commenced for a CCR surface impoundment, the owner/operator must submit the amendment to the department for review and approval no later than thirty (30) days following the triggering event.

4. The owner/operator of the CCR surface impoundment must obtain a written certification from a professional engineer that the initial and any amendment of the written closure plan meets the requirements of this section.

(C) Closure by removal of CCR. An owner/operator may elect to close a CCR surface impoundment by removing and decontaminating all areas affected by releases from the CCR surface impoundment. CCR removal and decontamination are complete when constituent concentrations throughout the CCR surface impoundment and any areas affected by releases from the CCR surface impoundment have been removed and groundwater monitoring concentrations do not exceed the groundwater protection standard established pursuant to subparagraph (10)(F)3.D. for constituents listed in Appendix II. CCR surface impoundments closed by removing the CCR are not subject to the post-closure criteria contained in section (15).

(D) Closure performance standard when leaving CCR in place.

1. The owner/operator of a CCR surface impoundment must ensure that, at a minimum, the CCR surface impoundment is closed in a manner that will—

A. Control, minimize, or eliminate, to the maximum extent feasible, post-closure infiltration of liquids into the waste and releases of CCR, leachate, or contaminated run-off to the ground or surface waters or to the atmosphere;

B. Preclude the probability of future impoundment of water, sediment, or slurry;

C. Include measures that provide for major slope stability to prevent the sloughing or movement of the final cover system during the closure and post-closure care period;

D. Minimize the need for further maintenance of the CCR surface impoundment; and

E. Be completed in the shortest amount of time consistent with recognized and generally accepted good engineering practices.

2. Drainage and stabilization of CCR surface impoundments. The owner/operator of a CCR surface impoundment or any lateral expansion of a CCR surface impoundment must meet the requirements below prior to installing the final cover system required under paragraph (19)(D)3.

A. Free liquids must be eliminated by removing liquid wastes or solidifying the remaining wastes and waste residues.

B. Remaining wastes must be stabilized sufficient to support the final cover system.

3. Final cover system. If a CCR surface impoundment is closed by leaving CCR in place, the owner/operator must install a final cover system, or an alternative final cover system, that is designed to minimize infiltration and erosion and, at a minimum, meets the following requirements:

A. The design of the final cover system must be included in the written closure plan required by subsection (19)(B). The final cover system must be designed and constructed to meet the criteria provided in section (14);

B. The owner/operator may select an alternative final cover system design, provided the alternative final cover system is designed and constructed to meet the performance criteria in section (14). The design of the final cover system must be included in the written closure plan required by subsection (19)(B).

(I) The design of the final cover system must include an infiltration layer that achieves an equivalent reduction in infiltration as the infiltration layer specified in section (14).

(II) The design of the final cover system must include an erosion layer that provides equivalent protection from wind or water erosion as the erosion layer specified in section (14).

(III) The disruption of the integrity of the final cover system must be minimized through a design that accommodates settling and subsidence; and

C. For final cover systems installed prior to the effective date of this rule, the owner/operator of the CCR surface impoundment must obtain a written certification from a professional engineer that the design of the final cover system meets the requirements of 40 CFR 257.102. Final cover systems installed after the effective date must meet the criteria contained in this section. The department will receive documentation in accordance with section (18).

(E) Initiation of closure activities. Except as provided for in paragraph (19)(E)4. and section (20), the owner/operator of a CCR surface impoundment must commence closure of the CCR surface impoundment no later than the applicable timeframes specified in either paragraph (19)(E)1. or 2. The CCR surface impoundment owner/operator must also notify the department one hundred and eighty (180) days prior to initiating closure.

1. The owner/operator must commence closure of the CCR surface impoundment no later than thirty (30) days after the date on which the CCR surface impoundment either:

A. Receives the known final receipt of waste, either CCR or any non-CCR waste stream; or

B. Removes the known final volume of CCR from the CCR surface impoundment for the purpose of beneficial use of CCR.

2. Initiation of closure activities timeframes.

A. Except as provided by subparagraph (19)(E)2.B., the owner/operator must commence closure of a CCR surface impoundment that has not received CCR or any non-CCR waste stream or is no longer removing CCR for the purpose of beneficial use within two (2) years of the last receipt of waste or within two (2) years of the last removal of CCR material for the purpose of beneficial use.

B. Notwithstanding subparagraph (19)(E)2.A., the owner/operator of the CCR surface impoundment may petition the department for an additional two (2) years to initiate closure of the idle CCR surface impoundment provided the owner/operator provides written documentation that the CCR surface impoundment will continue to accept wastes or will start removing CCR for the purpose of beneficial use. The documentation must be supported by, at a minimum, the information specified in parts (19)(E)2.B.(I) and (II). The owner/operator may obtain two (2)-year extensions provided the owner/operator continues to be able to demonstrate that there is reasonable likelihood that the CCR surface impoundment will accept wastes in the foreseeable future or will remove CCR from the CCR surface impoundment for the purpose of beneficial use. The owner/operator must submit to the department for approval each completed demonstration, if more than one (1) time extension is sought, prior to the end of any two (2)-year period.

(I) Information documenting that the CCR surface impoundment has remaining storage or disposal capacity or that the CCR surface impoundment can have CCR removed for the purpose of beneficial use; and

(II) Information demonstrating that that there is a reasonable likelihood that the CCR surface impoundment will resume receiving CCR or non-CCR waste streams in the foreseeable future or that CCR can be removed for the purpose of beneficial use. The narrative must include a best estimate as to when the CCR surface impoundment will resume receiving CCR or non-CCR waste streams. The situations listed in subparts (19)(E)2.B.(II)(a) through (d) are examples of situations that would support a determination that the CCR surface impoundment will resume receiving CCR or non-CCR waste streams in the foreseeable future.

(a) Normal plant operations include periods during which the CCR surface impoundment does not receive CCR or non-CCR waste streams, such as the alternating use of two (2) or more CCR surface impoundments whereby at any point in time one (1) CCR surface impoundment is receiving CCR while CCR is being removed from a second CCR surface impoundment after its dewatering;

(b) The CCR surface impoundment is dedicated to a coal-fired boiler impoundment that is temporarily idled (e.g., CCR

is not being generated) and there is a reasonable likelihood that the coal-fired boiler will resume operations in the future;

(c) The CCR surface impoundment is dedicated to an operating coal-fired boiler (i.e., CCR is being generated); however, no CCR are being placed in the CCR surface impoundment because the CCR are being entirely diverted to beneficial uses, but there is a reasonable likelihood that the CCR surface impoundment will again be used in the foreseeable future; and

(d) The CCR surface impoundment currently receives only non-CCR waste streams as defined by section (2) and those non-CCR waste streams are not generated for an extended period of time, but there is a reasonable likelihood that the CCR surface impoundment will again receive non-CCR waste streams in the future.

C. In order to obtain additional time extension(s) to initiate closure of a CCR surface impoundment beyond the two (2) years provided by subparagraph (19)(E)2.A., the owner/operator of the CCR surface impoundment must include with the demonstration required by subparagraph (19)(E)2.B. the following statement signed by the owner/operator or an authorized representative:

(I) I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

3. For purposes of this paragraph, closure of the CCR surface impoundment has commenced if the owner/operator has ceased placing waste and completes any of the following actions or activities:

A. Taken any steps necessary to implement the written closure plan required by subsection (19)(B);

B. Submitted a completed application for any required state or agency permit or permit modification; or

C. Taken any steps necessary to comply with any state or other agency standards that are a prerequisite, or are otherwise applicable, to initiating or completing the closure of a CCR surface impoundment.

4. The timeframes specified in paragraphs (19)(E)1. and 2. do not apply to an owner/operator of an existing CCR surface impoundment closing as required by subsection (1)(B).

(F) Completion of closure activities.

1, Except as provided for in paragraph (19)(F)2., existing and new CCR surface impoundments and any lateral expansion of a CCR surface impoundment, the owner/operator must complete closure of the CCR surface impoundment within six (6) months of commencing closure activities or other timeframe as approved by the department as part of the official closure plan.

A. Extensions listed in (19)(F)2. are only applicable to CCR surface impoundments that have demonstrated they meet the liner requirements.

2. Extensions of closure timeframes following approval of the official closure plan.

A. The timeframes for completing closure of a CCR surface impoundment specified under paragraph (19)(F)1. may be extended if the owner/operator can demonstrate that it was not feasible to complete closure of the CCR surface impoundment within the required timeframes due to factors beyond the facility's control. If the owner/operator is seeking a time extension beyond the time specified in the written closure plan, the demonstration must include a narrative discussion providing the basis for additional time beyond that specified in the closure plan. Factors that may support such a demonstration include:

(I) Complications stemming from the climate and weather, such as unusual amounts of precipitation or a significantly shortened construction season;

(II) Time required to dewater a CCR surface impoundment due to the volume of CCR contained in the CCR surface impoundment or the characteristics of the CCR in the CCR surface impoundment;

(III) The geology and terrain surrounding the CCR surface impoundment will affect the amount of material needed to close the CCR surface impoundment; or

(IV) Time required or delays caused by the need to coordinate with and obtain necessary approvals and permits from a state and local agencies.

B. Maximum time extensions.

(I) CCR surface impoundments of forty (40) acres or smaller may extend the time to complete closure by no longer than two (2) years.

(II) CCR surface impoundments larger than forty (40) acres may extend the timeframe to complete closure of the CCR surface impoundment multiple times, in two (2)-year increments. For each two (2)-year extension sought, the owner/operator must substantiate the factual circumstances demonstrating the need for the extension. No more than a total of five (5) two (2)-year extensions may be obtained for any CCR surface impoundment.

C. In order to obtain additional time extension(s) to complete closure of a CCR surface impoundment beyond the times provided by paragraph (19)(F)1., the owner/operator must submit to the department for review and approval, the demonstration required by subparagraph (19)(F)2.A. along with the following statement signed by the owner/operator or an authorized representative:

(I) I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

3. Upon completion, the owner/operator of the CCR surface impoundment must obtain a certification from a professional engineer verifying that closure has been completed in accordance with the closure plan specified in subsection (19)(B) and the requirements of this section and submit the certification to the department for approval.

(G) No later than the date the owner/operator initiates closure of a CCR surface impoundment, the owner/operator must submit a closure notification to the department.

(H) Within thirty (30) days of completion of closure of the CCR surface impoundment or within a timeframe agreed to by the department, the owner/operator must submit a closure notification to the department. The notification must include the certification by a professional engineer as required by paragraph (19)(F)3.

(I) Deed notations—See section (17) and 10 CSR 2.030. An owner/operator that closes a CCR surface impoundment through closure by removal in accordance with subsection (19)(C) is not subject to the deed notation requirements of subsection (19)(I).

(J) The owner/operator of the CCR surface impoundment must comply with the closure recordkeeping requirements specified in section (17).

(K) Criteria to retrofit an existing CCR surface impoundment.

1. To retrofit an existing CCR surface impoundment, the owner/operator must—

A. First remove all CCR, including any contaminated soils and sediments from the CCR surface impoundment;

B. Comply with the requirements in subsection (5)(B); and

C. A CCR surface impoundment undergoing a retrofit remains subject to all other requirements of this subpart, including the requirement to conduct any necessary corrective action.

2. Written retrofit plan.

A. Content of the plan. The owner/operator must prepare a written retrofit plan that describes the steps necessary to retrofit the CCR surface impoundment consistent with recognized and generally accepted good engineering practices. The written retrofit plan must

include, at a minimum, all of the following information:

(I) A narrative description of the specific measures that will be taken to retrofit the CCR surface impoundment in accordance with this section;

(II) A description of the procedures to remove all CCR and contaminated soils and sediments from the CCR surface impoundment;

(III) An estimate of the maximum amount of CCR that will be removed as part of the retrofit operation;

(IV) An estimate of the largest area of the CCR surface impoundment that will be affected by the retrofit operation; and

(V) A schedule for completing all activities necessary to satisfy the retrofit criteria in this section, including an estimate of the year in which retrofit activities of the CCR surface impoundment will be completed.

B. Timeframes for preparing the initial written retrofit plan. No later than sixty (60) days prior to date of initiating retrofit activities, the owner/operator must prepare an initial written retrofit plan consistent with the requirements specified in paragraph (19)(K)2. for submittal to and approval by the department. For purposes of this subparagraph, initiation of retrofit activities has commenced if the owner/operator has ceased placing waste in the CCR surface impoundment and completes any of the following actions or activities:

(I) Taken any steps necessary to implement the written retrofit plan;

(II) Submitted a completed application for any required state or agency permit or permit modification; or

(III) Taken any steps necessary to comply with any state or other agency standards that are a prerequisite, or are otherwise applicable, to initiating or completing the retrofit of a CCR surface impoundment.

(IV) The owner/operator has completed the written retrofit plan when the plan, including the certification required by subparagraph (19)(K)2.D., has been submitted to and approved by the department and placed in the facility's operating record.

C. Amendment of a written retrofit plan.

(I) The owner/operator may amend the initial or any subsequent written retrofit plan at any time with approval from the department.

(II) The owner/operator must amend the written retrofit plan whenever:

(a) There is a change in the operation of the CCR surface impoundment that would substantially affect the written retrofit plan in effect; or

(b) Before or after retrofit activities have commenced, unanticipated events necessitate a revision of the written retrofit plan.

(III) The owner/operator must amend the retrofit plan at least sixty (60) days prior to a planned change in the operation of the facility or CCR surface impoundment, or no later than sixty (60) days after an unanticipated event requires the revision of an existing written retrofit plan. If a written retrofit plan is revised after retrofit activities have commenced for a CCR surface impoundment, the owner/operator must amend the current retrofit plan no later than thirty (30) days following the triggering event.

D. The owner/operator of the CCR surface impoundment must obtain a written certification from a professional engineer that the activities outlined in the written retrofit plan, including any amendment of the plan, meet the requirements of this section. This certification must be submitted to the department for review and approval.

3. Deadline for completion of activities related to the retrofit of a CCR surface impoundment. Any CCR surface impoundment that is being retrofitted must complete all retrofit activities within the same time frames and procedures specified for the closure of a CCR surface impoundment in this section or, where applicable, section (20).

4. Upon completion, the owner/operator must obtain a certification from a professional engineer verifying that the retrofit activities have been completed in accordance with the retrofit plan specified in paragraph (19)(K)2. and the requirements of this section.

5. No later than the date the owner/operator initiates the retrofit of a CCR surface impoundment, the owner/operator must prepare a notification of intent to retrofit a CCR surface impoundment. The owner/operator has completed the notification when it has been placed in the facility's operating record as required.

6. Within thirty (30) days of completing the retrofit activities specified in paragraph (19)(K)1., the owner/operator must prepare a notification of completion of retrofit activities. The notification must include the certification by a professional engineer as required by paragraph (19)(K)4. and submitted to the department for review and approval. The owner/operator has completed the notification when it has been placed in the facility's operating record.

7. At any time after the initiation of a CCR surface impoundment retrofit, the owner/operator may cease the retrofit and initiate closure of the CCR surface impoundment in accordance with the requirements in section (19).

(20) Alternative closure requirements.

(A) The owner/operator of a CCR surface impoundment, or any lateral expansion of a CCR surface impoundment that is subject to closure pursuant to subsection (1)(B) may continue to receive CCR in the CCR surface impoundment provided the owner/operator meets the requirements of either subsection (20)(A) or (B) and receives department approval.

1. No alternative CCR disposal capacity. Notwithstanding the provisions of (1)(B), a CCR surface impoundment may continue to receive CCR if the owner/operator of the CCR surface impoundment certifies that the CCR must continue to be managed in that CCR surface impoundment due to the absence of alternative disposal capacity both on site and off site of the facility. To qualify under this paragraph, the owner/operator of the CCR surface impoundment must document that all of the following conditions have been met:

A. No alternative disposal capacity is available on site or off site. An increase in costs or the inconvenience of existing capacity is not sufficient to support qualification under this section;

B. The owner/operator has made, and continues to make, efforts to obtain additional capacity. Qualification under this subsection lasts only as long as no alternative capacity is available. Once alternative capacity is identified, the owner/operator must arrange to use such capacity as soon as feasible;

C. The owner/operator must remain in compliance with all other requirements of this rule, including the requirement to conduct any necessary corrective action; and

D. The owner/operator must prepare an annual progress report documenting the continued lack of alternative capacity and the progress towards the development of alternative CCR disposal capacity.

2. Once alternative capacity is available, the CCR surface impoundment must cease receiving CCR and initiate closure following the timeframes in section (19).

3. If no alternative capacity is identified within five (5) years after the initial certification, the CCR surface impoundment must cease receiving CCR and close in accordance with the timeframes in section (19).

(B) Permanent cessation of a coal-fired boiler(s) by a date certain. Notwithstanding the provisions of subsection (1)(B), a CCR surface impoundment may continue to receive CCR if the owner/operator certifies that the facility will cease operation of the coal-fired boilers within the timeframes specified in paragraphs (20)(B)4. and 5., but in the interim period (prior to closure of the coal-fired boiler), the facility must continue to use the CCR surface impoundment due to the absence of alternative disposal capacity both on site and off site of the facility. To qualify under this subsection, the owner/operator of the CCR surface impoundment must document that all of the following conditions have been met and submit such documentation to

the department for review and approval:

1. No alternative disposal capacity is available on site or off site. An increase in costs or the inconvenience of existing capacity is not sufficient to support qualification under this section;

2. The owner/operator must remain in compliance with all other requirements of this subsection, including the requirement to conduct any necessary corrective action; and

3. The owner/operator must prepare an annual progress report documenting the continued lack of alternative capacity and the progress towards the closure of the coal-fired boiler.

4. For a CCR surface impoundment that is forty (40) acres or smaller, the coal-fired boiler must cease operation and the CCR surface impoundment must have completed closure no later than October 17, 2023.

5. For a CCR surface impoundment that is larger than forty (40) acres, the coal-fired boiler must cease operation, and the CCR surface impoundment must complete closure no later than October 17, 2028.

(C) Required notices and progress reports. An owner/operator of a CCR surface impoundment that closes in accordance with subsections (20)(A) or (B) must complete and submit the notices and progress reports to the department specified in paragraphs (20)(C)1. and 2.

1. Within six (6) months of becoming subject to closure pursuant to subsection (1)(B), the owner/operator must prepare and submit to the department a notification of intent to comply with the alternative closure requirements of this section. The notification must describe why the CCR surface impoundment qualifies for the alternative closure provisions under either subsections (20)(A) or (B), in addition to providing the documentation and certifications required by subsections (20)(A) or (B).

2. The owner/operator must prepare the periodic progress reports required by subparagraph (20)(A)1.D. or paragraph (20)(B)3., in addition to describing any problems encountered and a description of the actions taken to resolve the problems. The annual progress reports must be completed according to the following schedule:

A. The first annual progress report must be prepared and submitted to the department for approval no later than thirteen (13) months after receiving department approval of the alternative closure requirements.

B. The second annual progress report must be prepared and submitted to the department for approval no later than twelve (12) months after completing the first annual progress report. Additional annual progress reports must be prepared and submitted to the department for approval within twelve (12) months of completing the previous annual progress report.

C. The owner/operator has completed the progress reports specified in paragraph (20)(C)2. when the reports are submitted to the department for approval, determined complete by the department, and the reports have been placed in the facility's operating record.

D. An owner/operator of a CCR surface impoundment must also prepare the notification of intent to close a CCR surface impoundment as required by section (19).

E. The owner/operator of the CCR surface impoundment must comply with the recordkeeping requirements specified in section (17).

Appendix I—Constituents for Detection Monitoring
Boron
Calcium
Chloride
Fluoride
pH
Sulfate
Total Dissolved Solids (TDS)

Appendix II—Constituents for Assessment Monitoring
Antimony
Arsenic
Barium
Beryllium
Cadmium
Chromium
Cobalt
Fluoride
Lead
Lithium
Mercury
Molybdenum
Selenium
Thallium
Radium 226 and 228 combined

*AUTHORITY: section 260.225, RSMo 2016. Original rule filed Dec. 31, 2018.*

*PUBLIC COST: This proposed rule will cost state agencies or political subdivisions seven hundred and four thousand six hundred and forty-one dollars ($704,641) in aggregate.*

*PRIVATE COST: This proposed rule will cost private entities approximately three million and four hundred and seven thousand dollars ($3,407,000) in the aggregate.*

*NOTICE OF PUBLIC HEARING AND NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed rule with the Missouri Department of Natural Resources, 1101 Riverside Drive, Jefferson City, MO. To be considered, comments will be received until March 28, 2019. A public hearing is scheduled for 1:00 p.m. March 21, 2019, at the LaCharrette Conference Room, 1101 Riverside Drive, Jefferson City, Missouri.*

**FISCAL NOTE**

**PUBLIC COST**

**I. RULE NUMBER**

| |
|---|
| 10 CSR 80-12.010 Coal Combustion Residuals Surface Impoundment |
| New Rule |

**II. SUMMARY OF FISCAL IMPACT**

| Affected Agency or Political Subdivision | Estimated Cost of Compliance in the Aggregate |
|---|---|
| Missouri Department of Natural Resources | $704,641.00 |
| No other public entities should incur cost | |
| | |

III. Worksheet

| I. Fund Costs by Category | FY 2019 | FY 2020 | FY 2021 | Total per Rule |
|---|---|---|---|---|
| Salaries | $165,330.00 | $333,967.00 | $337,306.00 | |
| Fringe Benefits | $103,043.00 | $163,916.00 | $164,908.00 | |
| Equipment and Expense | $75,804.00 | $32,103.00 | $32,905.00 | |
| Local Assistance | $0.00 | $0.00 | $0.00 | |
| Other Fund Costs | $0.00 | $0.00 | $0.00 | |
| **TOTAL FUND COSTS - ALL CATEGORIES** | **$344,177.00** | **$529,986.00** | **$535,119.00** | |
| **Divided in Half per rule** | **$172,088.50** | **$264,993.00** | **$267,559.50** | **$704,641.00** |

IV. Assumptions

1. The totals in the worksheet above are divided for the two CCR rules (landfill and impoundment) evenly.

| Position | FTE | Duties |
|---|---|---|
| Environmental Engineer I/II (at $58,896 annually) | 2 | Permit modifications, groundwater monitoring reviews, groundwater corrective action planning and oversight, Inspections, website review, new cell construction review and analysis |
| Environmental Specialist I/II/III (at $52,116 annually) | 1 | Groundwater monitoring, groundwater report reviews, inspections as needed |
| Environmental Specialist I/II/III (at $52,116 annually) | 2 | Quarterly inspections for each of the 37 ponds, beneficial use inspections, investigation efforts |
| Geologist I/II/III (at $56,520 annually) | 1 | Groundwater monitoring, groundwater corrective action, and geological and hydrological assessments for the siting of new CCR units |

**FISCAL NOTE**

**PRIVATE COST**

## I. RULE NUMBER

| |
|---|
| 10 CSR 80-12.010 Coal Combustion Residual Surface Impoundment |
| New Rule |

## II. SUMMARY OF FISCAL IMPACT

| Estimate of the number of entities by class which would likely be affected by the adoption of the proposed rule: | Classification by types of the business entities which would likely be affected: | Estimate in the aggregate as to the cost of compliance with the rule by the affected entities: |
|---|---|---|
| Electrical Generating Coal Fired Power Plants that have CCR Impoundments | Corporations and Municipalities | $3,407,000 for first three years |
| | | |
| | | |

III. Worksheet

Impoundments

| Facility Name | Owner/Operator | Impoundment I.D. | Status | Closure | 5-Year Type Fee | Annual |
|---|---|---|---|---|---|---|
| AECI New Madrid | AECI | Ash pond #004 | Operating | | $62,000 | $15,000 |
| AECI New Madrid | AECI | Ash pond #003 | Operating | | $62,000 | $15,000 |
| AECI New Madrid | AECI | Lined ash pond | Operating | | $62,000 | $15,000 |
| AECI Thomas Hill | AECI | Slag pond 001, cell 1 | Operating | | $62,000 | $15,000 |
| AECI Thomas Hill | AECI | Slag pond 001, cell 3 | Operating | | $62,000 | $15,000 |
| AECI Thomas Hill | AECI | Slag pond 001, cell 4 | Operating | | $62,000 | $15,000 |
| Ameren Labadie | Ameren | Flyash pond | Operating | | $62,000 | $15,000 |
| Ameren Labadie | Ameren | Bottom ash pond | Operating | | $62,000 | $15,000 |
| Ameren Meramec | Ameren | Pond 498 | Operating | | $62,000 | $15,000 |
| Ameren Meramec | Ameren | Pond 492 | Operating | | $62,000 | $15,000 |
| Ameren Meramec | Ameren | Pond 493 | Operating | | $62,000 | $15,000 |
| Ameren Meramec | Ameren | Pond 496 | Operating | | $62,000 | $15,000 |
| Ameren Meramec | Ameren | Pond 490 | Operating | | $62,000 | $15,000 |
| Ameren Meramec | Ameren | Pond 491 | Operating | | $62,000 | $15,000 |
| Ameren Meramec | Ameren | Pond 494 | Operating | | $62,000 | $15,000 |
| Ameren Meramec | Ameren | Pond 495 | Closure in progress | In Place | $48,000 | N/A |
| Ameren Rush Island | Ameren | Ash pond | Operating | | $62,000 | $15,000 |
| Ameren Sioux | Ameren | Bottom ash pond | Operating | | $62,000 | $15,000 |
| Ameren Sioux | Ameren | Flyash pond | Operating | | $62,000 | $15,000 |
| Ameren Sioux | Ameren | Permitted LF (wet) | Operating | | $62,000 | $15,000 |
| Empire Asbury | Empire | Upper, Lower, and South ponds | Operating | | $62,000 | $15,000 |
| KCPL Montrose | KCPL | North ash pond | Operating | | $62,000 | $15,000 |
| KCPL Montrose | KCPL | South ash pond (primary and secondary) | Operating | | $62,000 | $15,000 |
| KCPL Sibley | KCPL | Flyash pond | Operating | | $62,000 | $15,000 |
| KCPL Sibley | KCPL | Slag settling pond | Operating | | $62,000 | $15,000 |
| Sikeston BMU | Sikeston | Bottom ash pond | Operating | | $62,000 | $15,000 |
| Sikeston BMU | Sikeston | Flyash pond | Operating | | $62,000 | $15,000 |
| Ameren Meramec | Ameren | Pond 489 | Closed | In Place Dec 2017 | $48,000 | N/A |
| IPL Blue Valley | IPL | North and South bottom ash ponds | Closed | In Place 12-19-17 (Partial) Clean 12-19-17 | $48,000 | N/A |
| IPL Blue Valley | IPL | South flyash pond | Closed | In Place 12-19-17 | $48,000 | N/A |
| IPL Blue Valley | IPL | North flyash pond | Closed | In Place 12-19-17 | $48,000 | N/A |
| | | | | | $1,852,000 | $390,000 |

| | Number of CCR Impoundments | 2019 | 2020 | 2021 |
|---|---|---|---|---|
| One-time fee ($48,000/ unit) | 5 | $240,000 | 0 | 0 |
| One-time fee ($62,000/ unit) | 26 | $1,612,000 | 0 | 0 |
| Annual fee ($15,000/ unit) | 26 | $390,000 | $390,000 | $390,000 |
| | | **$2,242,000** | **$390,000** | **$390,000** |

| Financial Assurance Instrument Preparation Cost | | |
|---|---|---|
| Impoundment Facilite Sites | FAI Cost | Total Cost |
| 11 | $5,000.00 | $55,000.00 |

| Construction QA/QC after Closure for Report | | |
|---|---|---|
| ($30,000 per impoundment group) | 11 | $330,000 |

IV. Assumptions

1. The fee is based on an annual fee of $15,000.00 per facility, a one-time enrollment fee of $48,000.00 for facilities that complete closure in place prior to December 31, 2018, and a one-time enrollment fee of $62,000.00 for facilities that do not close by January 1, 2019.
2. There are twenty six (26) impoundments subject to the annual fee.
3. There are 11 sites with impoundments which can be grouped for development of the Financial Assurance Instruments (FAI)s.
4. All facilities used for this calculation are Coal Combustion Residual Impoundments as defined by 40 CFR part 257.
5. The fee will be paid annually until the facility is approved for release from post closure by the Department of Natural Resources.
6. It is assumed that all facilities will not conduct closure by removal (i.e. facilities plan to leave CCR material in place as part of closure) and will pay the annual fees through the post closure period.
7. 40 CFR Part 257 was effective on October 19, 2015 the regulatory requirements mirror the federal regulations except that FAIs and construction quality assurance/ construction quality control (QA/QC) are state requirements.
8. FAIs will require the development of a financial worksheet and the submittal of a financial test. It is assumed that all Electrical Generating Coal Fired Power Plants that have CCR Impoundments will use a financial test as their FAI mechanism due to the great asset versus debt ratios these entities typically have.
9. QA/QC will require the submittal of a summary report after closure. 40 CFR 257 has requirements for the Professional Engineer (PE) certification of all work completed at the CCR impoundment. The Department will require the submittal of a PE certified report summarizing the P.E.'s oversight of the work.
10. The QA/QC Cost will be incurred after the facilities close. We are unsure about closure dates.

## Title 13—DEPARTMENT OF SOCIAL SERVICES
## Division 70—MO HealthNet Division
## Chapter 3—Conditions of Provider Participation, Reimbursement and Procedure of General Applicability

## PROPOSED RULE

### 13 CSR 70-3.280 Home and Community-Based Services Waiver Definitions

*PURPOSE: This rule defines terms used in 13 CSR 70-3.290, which implements federal regulatory requirements promulgated by the United States Department of Health and Human Services, Centers for Medicare and Medicaid Services at 42 CFR 441.301(c)(4). These requirements must be met for settings in which home and community-based services are provided under a 1915(c) HCBS Waiver Program.*

(1) "Enroll/Enrollment" is the process that Missouri Medicaid Audit and Compliance (MMAC) uses to establish eligibility to receive a Medicaid billing number and/or Medicaid billing privileges. The process includes—

(A) Identification of a provider;

(B) Validation of the provider's eligibility to provide items or services to Medicaid beneficiaries;

(C) Identification and confirmation of the provider's practice location(s) and owner(s); and

(D) Granting the provider Medicaid billing privileges and/or a Medicaid billing number.

(2) "Heightened Scrutiny" is a process whereby a provider submits information to Department of Social Services (DSS), or its designee, to overcome the presumption that the setting has the qualities of an institution. If DSS or its designee, based on the information presented by the provider, determines that the setting does have the qualities of a home and community-based setting, the evidence will be sent to the Centers for Medicare and Medicaid Services. The Centers for Medicare and Medicaid Services will review evidence submitted by the state and make a final determination as to whether the evidence is sufficient to overcome the presumption that the setting has the qualities of an institution. These settings include those in a publicly or privately-owned facility that provide inpatient treatment; are on the grounds of, or are immediately adjacent to, a public institution; or that have the effect of isolating individuals receiving Medicaid-funded Home and Community-Based Services (HCBS) from the broader community of individuals not receiving Medicaid-funded HCBS.

(3) "Home and Community-Based Services" are MO HealthNet Division covered services provided to individuals in their own home or community rather than in a hospital, nursing home, or intermediate care facility for individuals with intellectual disabilities.

(4) "Home and Community-Based Services Waiver" is a program approved by the Centers for Medicare and Medicaid Services under the authority of Section 1915(c) of the Social Security Act that provides home and community based services.

(5) "Hospital" is a facility licensed by the Missouri Department of Health and Senior Services, or by the appropriate state agency for facilities located in another state, as an acute care, psychiatric or rehabilitation hospital.

(6) "Institution for Mental Diseases (IMD)" is a hospital, nursing facility, or other institution of seventeen (17) beds or more that is primarily engaged in providing diagnosis, treatment, or care of people with mental diseases.

(7) "Intermediate Care Facilities for individuals with Intellectual disability (ICF/IID)" is a facility as defined at 19 CSR 30-83.010(24).

(8) "Missouri Medicaid Audit and Compliance Unit (MMAC)" is the unit within the Department of Social Services that is responsible for the oversight and auditing of compliance for the Medicaid Title XIX, CHIP Title XXI, and Waiver Program in Missouri, which includes the oversight and auditing of compliance of MO HealthNet providers and Medicaid participants through the lock-in program. MMAC is charged with the responsibility of detecting, investigating, and preventing fraud, waste, and abuse of the Missouri Medicaid Title XIX, CHIP Title XXI, and Waiver Programs.

(9) "MO HealthNet" is the division within the Department of Social Services, pursuant to sections 208.001 and 208.201, RSMo, that administers the Medicaid Title XIX, CHIP Title XXI, and waiver programs, approves claims from MO HealthNet providers for services or merchandise provided to eligible Medicaid participants, and authorizes and disburses payment for those services or merchandise accordingly.

(10) "MO HealthNet Program" is a program operated pursuant to Title XIX of the Social Security Act, Title XXI of the Social Security Act and/or waiver programs authorized by the United States Department of Health and Human Services.

(11) "Licensed Nursing Home" is a skilled nursing facility as defined at 19 CSR 30-83.010(49).

(12) "Person-Centered Service Plan" is a document that is the result of a planning process which identifies the strengths, capacities, preferences, needs, goals, and desired personal outcomes of the individual.

(13) "Provider" is a person or entity who enters into a contract or provider agreement with MMAC for the purpose of providing items or services to Missouri Medicaid participants. Provider includes ordering and referring physicians, dentists, and non-physician practitioners.

(14) "Provider Owned or Controlled Residential Setting" is a physical place where an individual resides and is owned, co-owned, and/or operated by a provider of HCBS. A setting is considered provider owned or controlled if the HCBS provider leases from a third party or owns the property. If the HCBS provider does not lease or own the property but has a direct or indirect financial relationship with the property owner, the setting is considered provider controlled unless the property owner or provider establishes that the nature of the relationship did not affect either the care provided or the financial conditions applicable to tenants.

(15) "Residential Setting" is a physical place to live where an individual has services and supports, ranging from twenty-four- (24-) hour supervision to on-call assistance, to live as independently as possible.

(16) "Revalidation" is a requirement that all existing MO HealthNet Program providers must go through in accordance with 13 CSR 65-2 to continue to be a MO HealthNet Program provider.

(17) "Setting" is the place where a home and community-based service or support is provided.

*AUTHORITY: sections 208.153, 208.201, and 660.017, RSMo 2016. Original rule filed Dec. 21, 2018.*

*PUBLIC COST: This proposed rule will not cost state agencies or political subdivisions more than five hundred dollars ($500) in the*

*aggregate.*

*PRIVATE COST: This proposed rule will not cost private entities more than five hundred dollars ($500) in the aggregate.*

*NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed rule with the Department of Social Services, Legal Services Division-Rulemaking, PO Box 1527, Jefferson City, MO 65102-1527, or by email to Rules.Comment@dss.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the* ***Missouri Register****. No public hearing is scheduled.*

## Title 13—DEPARTMENT OF SOCIAL SERVICES
## Division 70—MO HealthNet Division
## Chapter 3—Conditions of Provider Participation, Reimbursement and Procedure of General Applicability

## PROPOSED RULE

### 13 CSR 70-3.290 Home and Community-Based Services Waiver Setting Requirements

*PURPOSE: This rule implements federal regulatory requirements promulgated by the United States Department of Health and Human Services, Centers for Medicare and Medicaid Services at 42 CFR 441.301(c)(4) establishing the requirements that must be met for settings in which home and community-based services are provided under a 1915(c) HCBS Waiver Program. 1915(c) Home and Community-Based Services (HCBS) Waiver Programs are programs that provide home and community based services to individuals who, in the absence of those services, require the level of care provided in a hospital, a nursing facility, or an ICF/IID. To offer a 1915(c) HCBS Waiver Program the state must submit a waiver application for approval to the Centers for Medicare and Medicare Services, who, on behalf of the Secretary of Health and Human Services, determines if the waiver meets the statutory and regulatory requirements found in 42 CFR 441.301—441.310.*

(1) Home and Community-Based Setting Requirements. Home and community-based settings must have all of the following qualities based on the needs of individuals as indicated in their person-centered service plans:

(A) The setting is integrated in and supports full access of individuals receiving Medicaid Home and Community-Based Services (HCBS) to the greater community, including providing opportunities to seek employment and work in competitive integrated settings, engage in community life, control personal resources, and receive services in the community, to the same degree of access as individuals not receiving Medicaid HCBS;

(B) The setting is selected by the individual from setting options, including non-disability specific settings and an option for a private unit in a residential setting. The setting options are identified and documented in the person-centered service plan and are based on the individual's needs, preferences, and, for residential settings, resources available for room and board;

(C) The setting ensures the individual's rights of privacy, dignity, and respect, and freedom from coercion and restraint;

(D) The setting optimizes, but does not regiment, individual initiative, autonomy, and independence in making life choices, including but not limited to, daily activities, physical environment, and with whom to interact;

(E) The setting facilitates individual choice regarding services and supports, and who provides them; and

(F) In a provider-owned or controlled residential setting, in addition to the qualities at 13 CSR 70-3.290 (1)(A) through (E), the following additional conditions must be met:

1. The unit or dwelling is a physical place that can be owned, rented, or occupied under a legally enforceable agreement by the individual receiving services, and the individual has, at a minimum, the same responsibilities and protections from eviction that tenants have under the landlord/tenant law of the State of Missouri, county, city, or other designated entity. For settings in which landlord/tenant laws do not apply, a lease, residency agreement, or other form of written agreement must be in place for each HCBS participant, and that document must provide protections that address eviction processes and appeals comparable to those provided under the jurisdiction's landlord tenant law;

2. Individuals have privacy in their sleeping or living unit including:

A. Units have entrance doors lockable by the individual, with only appropriate staff having keys to doors;

B. Individuals sharing units have a choice of roommates in that setting;

C. Individuals have the freedom to furnish and decorate their sleeping or living units within the lease or other agreement;

3. Individuals have the freedom and support to control their own schedules and activities, and have access to food at any time;

4. Individuals are able to have visitors of their choosing at any time;

5. The setting is physically accessible to the individual; and

6. Any modification of the additional conditions, under (1)(F)1. through 4. of this rule, must be supported by a specific assessed need and justified in the person-centered service plan. If any modifications are made, the following requirements must be documented in the person-centered service plan:

A. A specific and individualized assessed need;

B. Positive interventions and supports used prior to any modifications to the person-centered service plan;

C. Less intrusive methods of meeting the need that have been tried but did not work;

D. A clear description of the condition that is directly proportionate to the specific assessed need;

E. Regular collection and review of data to measure the ongoing effectiveness of the modification;

F. Established time limits for periodic reviews to determine if the modification is still necessary or can be terminated;

G. The informed consent of the individual; and

H. An assurance that interventions and supports will cause no harm to the individual.

(2) Settings that are not Home and Community-Based. Home and community-based settings do not include the following:

(A) A nursing facility;

(B) An institution for mental diseases;

(C) An intermediate care facility for individuals with intellectual disabilities;

(D) A hospital; or

(E) Any other locations that have qualities of an institutional setting, as determined by the Department of Social Services (DSS) or its designee.

(3) Heightened Scrutiny process. Any setting that is located in a building that is also a publicly or privately operated facility that provides inpatient institutional treatment, or in a building on the grounds of, or immediately adjacent to, a public institution, or any other setting that has the effect of isolating individuals receiving Medicaid HCBS from the broader community of individuals not receiving Medicaid HCBS, will be presumed to be a setting that has the qualities of an institution and is not a home and community based setting. The provider may submit information to DSS or its designee as evidence that the setting does have the qualities of a home and community-based setting. If DSS or its designee, based on the information presented by the provider, determines that the setting does have the qualities of a home and community-based setting, the evidence will

be sent to the Centers for Medicare and Medicaid Services to make the final determination as to whether the evidence is sufficient to overcome the presumption that the setting has the qualities of an institution.

(4) Provider Enrollment.

(A) Prior to enrolling with MO HealthNet, HCBS providers will need to certify in writing on forms provided by the Missouri Medicaid Audit and Compliance Unit (MMAC) that they understand and will comply with the requirements of this rule. Providers will certify by the signature of an authorized agent of the business as part of their MO HealthNet application documentation. Providers that refuse to certify shall be denied enrollment with MO HealthNet.

(B) HCBS providers shall be subject to a pre-enrollment site visit per 13 CSR 65-2.020(9)(B)(2)(B). Enrolling HCBS providers who are non-compliant with sections (1)-(3) of this rule shall be denied enrollment with MO HealthNet.

1. Providers who request in writing an extension to their application process in order to become compliant with sections (1)-(3) of this rule shall be granted thirty (30) calendar days to become compliant, without paying an additional application fee per 13 CSR 65-2.020(5). This thirty- (30-) day time period is in accordance with the provisions of 13 CSR 70-3.020(2)(D) and MMAC shall notify the provider in writing of the thirty- (30-) day extension accordingly. If, at the end of the thirty- (30-) day extension, the provider is still non-compliant, the provider shall be denied enrollment.

(5) Provider Revalidation. All MO HealthNet providers must revalidate in accordance with 13 CSR 65-2.020(4). HCBS providers must be compliant with sections (1)-(3) of this rule upon revalidation or they shall not be entitled to continued MO HealthNet participation. If an enrolled HCBS provider is found to be out of compliance during its revalidation process, the provider shall be granted thirty (30) days to come into compliance or shall be denied continued enrollment in the MO HealthNet program.

(6) Providers enrolled with MO HealthNet on or after March 17, 2014, must be in compliance and maintain continued compliance with all the requirements of this regulation upon publication of the regulation.

(7) Providers enrolled with MO HealthNet prior to March 17, 2014, that do not meet the requirements of this regulation, must come into compliance within ninety (90) days of the publication of this regulation or submit and have approved a remediation plan to come into compliance with the requirements of this regulation. The remediation plan must be submitted and approved by DSS or its designee. All providers must be in compliance with the requirements of this regulation no later than March 17, 2022.

(8) Sanctions. Enrolled providers that are non-compliant with sections (1)-(7) of this rule, during their participation with MO HealthNet, are subject to sanctions per 13 CSR 70-3.030.

(A) DSS or its designee shall inform enrolled providers of non-compliance in writing by e-mail or U.S. Mail.

(B) Enrolled providers shall submit a plan to remediate areas of non-compliance ("transition plan") to DSS or its designee within forty-five (45) calendar days of the notice of non-compliance.

(C) Remediation must be complete within one hundred twenty (120) days of the notice of non-compliance or the provider shall be subject to sanctions per 13 CSR 70-3.030 (5)(A).

*AUTHORITY: sections 208.153, 208.201, and 660.017, RSMo 2016. Original rule filed Dec. 21, 2018.*

*PUBLIC COST: This proposed rule will not cost state agencies or political subdivisions more than five hundred dollars ($500) in the aggregate.*

*PRIVATE COST: This proposed rule will not cost private entities more than five hundred dollars ($500) in the aggregate.*

*NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed rule with the Department of Social Services, Legal Services Division-Rulemaking, PO Box 1527, Jefferson City, MO 65102-1527, or by email to Rules.Comment@dss.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the **Missouri Register**. No public hearing is scheduled.*

## Title 13—DEPARTMENT OF SOCIAL SERVICES
## Division 110—Division of Youth Services
## Chapter 8—Youth Finances

## PROPOSED RULE

### 13 CSR 110-8.010 Division of Youth Services Trust Fund Program

*PURPOSE: This rule provides a program for youth in the Division of Youth Services (DYS) residential care to access funds, for reasonable purposes, as deemed appropriate by the division, in the DYS Trust Fund created by section 219.095, RSMo. The DYS Trust Fund is a special class of trust funds to be used to account for all wages earned by residential youth and for other funds provided for the use and benefit of residential youth, excluding monies received by the DYS on behalf of youth from the Social Security Administration. This rule describes how the DYS establishes and maintains bank accounts to account for monies received for residential youth, except for monies received from the Social Security Administration.*

(1) As used in this regulation, unless the context clearly indicates otherwise, the following terms mean:

(A) "Residential Youth" means a youth who has been committed to the DYS in the manner authorized by law, and who is placed in residential care;

(B) "Trust Fund" means a bank account established by the Division of Youth Services (DYS) for the receipt and disbursement of youth monies received while in residential placement, excluding payments made to youth in DYS custody by the social security administration; and

(C) "Youth" means a person under twenty-one (21) years of age committed to the custody of DYS.

(2) When a youth is placed in the legal custody of the DYS, DYS shall receive and hold all youth wages or other monies provided to residential youth, excluding monies received by the Social Security Administration, in a DYS Trust Fund for the duration of the time that the youth is in DYS residential care.

(3) A DYS Trust Fund will be established for each DYS residential facility to hold all youth wages or other monies provided to residential youth, excluding payments made to youth in DYS custody by the Social Security Administration.

(A) The DYS Trust Fund, whenever possible, shall be a non-interest bearing checking account.

(B) The Director of DYS or the Director's designee shall authorize opening of each account and shall be the opening signatory on each account.

(C) Each facility will designate two (2) employees to be authorized to sign for the deposit and withdrawal of funds after an account is established. The director shall approve the designated employees.

(4) Each DYS Trust Fund shall have the following process for the receipt and the tracking of funds:

(A) There shall be a general fund ledger to track all deposits and

all withdrawals from the trust fund;

(B) There shall be individual ledgers for each residential youth who has monies deposited into the fund.

1. Wages from the any program established under section 219.091, RSMo, will be received by DYS on behalf of the youth and will be deposited into the trust fund. Each youth will be provided a receipt showing the deposit of funds in the trust fund.

2. Residential youth will also be provided a receipt for any other monies deposited into the DYS Trust fund on their behalf while residing in the facility; and

(C) Each facility shall have one (1) receipt book to track deposits into the DYS Trust Fund. An entry detailing the date, time amount, source of funds, and identification of the youth on whose behalf the monies are deposited will be made in the receipt book every time money is received on behalf of the youth.

(5) Each trust fund shall have the following process for the withdrawal of funds:

(A) Residential youth may withdraw monies with the approval of their group leader to ensure appropriate use and alignment with the comprehensive individual treatment plan;

(B) Each facility shall have one ledger to track all withdrawals from the DYS Trust Fund. An entry detailing the date, time, amount, name of the youth, and purpose for the transaction shall be made in the ledger every time money is disbursed from the fund; and

(C) Upon release into the community, a check for the full balance shall be provided to the youth for the balance of funds on the youth's individual ledger.

(6) Reconciliation:

(A) The trust fund's receipt book and general ledger shall be reconciled on a monthly basis with the bank statement;

(B) Each individual ledger shall be reconciled on a monthly basis with the general ledger; and

(C) DYS and the Division of Finance and Administrative Services of the Department of Social Services may audit the books of each trust fund at any time.

(7) Each DYS youth involved in residential treatment services will participate in a personal finance curriculum, which will focus on wise money management.

(8) Unclaimed Trust Fund Balance. DYS shall promptly disburse any balance of monies accumulated in the youth's account in the manner required by law when the youth is released from DYS residential care or upon death of the youth.

*AUTHORITY: sections 219.016, 219.036, 219.091, and 660.017, RSMo 2016. Original rule filed Dec. 19, 2018.*

*PUBLIC COST: This proposed rule will not cost state agencies or political subdivisions more than five hundred dollars ($500) in the aggregate.*

*PRIVATE COST: This proposed rule will not cost private entities more than five hundred dollars ($500) in the aggregate.*

*NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed rule with the Department of Social Services, Legal Services Division-Rulemaking, PO Box 1527, Jefferson City, MO 65102-1527, or by email to Rules.Comment@dss.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the* ***Missouri Register****. No public hearing is scheduled.*

## Title 13—DEPARTMENT OF SOCIAL SERVICES
## Division 110—Division of Youth Services
## Chapter 8—Youth Finances

## PROPOSED RULE

### 13 CSR 110-8.020 Division of Youth Services Child Benefits Program

*PURPOSE: The purpose of this rule is to account for monies received by the Division of Youth Services (DYS) from the Social Security Administration when the DYS has been named the representative payee of a residential youth. The DYS Child Benefits Fund is established within the State Treasury for depositing of payments from the Social Security Administration to youth in DYS custody. Monies deposited in this fund shall be used only for the purposes specified by federal or state law or by these regulations. Monies in this special trust fund are not deemed to be state funds.*

(1) As used in this regulation, unless the context clearly indicates otherwise, the following terms mean:

(A) "Benefit" means monies received on behalf of a youth from the Social Security Administration;

(B) "Youth" means a person under twenty-one (21) years of age committed to the custody of the Division of Youth Services (DYS); and

(C) "Residential Youth" means a youth who has been committed to the DYS in the manner provided by law, and who is placed in residential care.

(2) The Fiscal Liaison for the DYS is responsible for establishing centralized methods to oversee the accounting of receipts and disbursements from this fund. Such methods require that—

(A) There shall be an individual ledger for each youth receiving benefits when DYS has been appointed as Representative Payee for a youth in custody. The ledger shall contain all deposits and withdrawals of the youth's money;

(B) There shall also be a control ledger to track all deposits and withdrawals from the fund; and

(C) The control ledger shall be reconciled monthly with the individual ledger and the fund balance.

(3) Receipts from the Social Security Administration.

(A) All funds directly received by DYS as payee for a residential youth shall be deposited into the DYS Child Benefits Fund.

(B) Any checks received by the DYS from the Social Security Administration will be sent to the Division of Finance and Administrative Services (DFAS) for deposit into the DYS Child Benefits Fund.

(4) Utilization of the Child Benefits Fund.

(A) Monies deposited in this fund shall be used only for the purposes authorized by federal and state law, or by regulation of the DYS.

(B) Each facility with a youth receiving a Social Security benefit shall be issued a purchasing card designated solely for the use of the Social Security benefits of a youth in custody.

(C) Authorized DYS facility staff may make purchases for the youth receiving benefits up to the amount held in the youth's fund based on need. All purchases shall be approved by the facility manager or his or her designee. Youth will not be provided with cash.

(5) Payments from the Child Benefits Fund include:

(A) Facility staff for each facility shall submit monthly purchasing card statements to DYS Central Office, along with copies of receipts from purchases;

(B) If funds are available, payments from the DYS Child Benefits Fund shall be made to off-set any purchases made for the youth in

custody with the purchasing card; and

(C) All expenditures shall be posted to the applicable individual ledgers and the control ledger.

(6) Removal of DYS as Representative Payee.

(A) DYS will resign as representative payee upon the release of a youth from residential care.

(B) DYS will submit to the Social Security Administration a written request to resign as representative payee, along with a check for the remaining balance in the youth's individual ledger and any documentation requested by the Social Security Administration concerning all account activity as may be required by federal law.

*AUTHORITY: sections 219.016, 219.036, and 660.017, RSMo 2016. Original rule filed Dec. 19, 2018.*

*PUBLIC COST: This proposed rule will not cost state agencies or political subdivisions more than five hundred dollars ($500) in the aggregate.*

*PRIVATE COST: This proposed rule will not cost private entities more than five hundred dollars ($500) in the aggregate.*

*NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed rule with the Department of Social Services, Legal Services Division-Rulemaking, PO Box 1527, Jefferson City, MO 65102-1527, or by email to Rules.Comment@dss.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the* ***Missouri Register****. No public hearing is scheduled.*

## Title 19—DEPARTMENT OF HEALTH AND SENIOR SERVICES
## Division 20—Division of Community and Public Health
## Chapter 60—Maternal and Neonatal Care

## PROPOSED RULE

### 19 CSR 20-60.010 Levels of Maternal and Neonatal Care Designations

*PURPOSE: This rule establishes criteria and procedures for reporting standardized assessments and levels of maternal and neonatal care designations for birthing facilities.*

*PUBLISHER'S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproductions. This note applies only to the reference material. The entire text of the rule is printed here.*

(1) The following definitions shall apply throughout this rule:

(A) "Birthing facility" means any hospital, as defined under section 197.020 RSMo, with more than one licensed obstetric bed or a neonatal intensive care unit, a hospital operated by a state university, or a birthing center licensed under sections 197.200 to 197.240, RSMo;

(B) "Department" means the Missouri Department of Health and Senior Services; and

(C) "LOCATe" or "CDC Maternal and Neonatal Levels of Care Assessment Tool" refers to a web-based tool created by the Centers for Disease Control and Prevention (CDC) that assists in creating standardized assessments of levels of maternal and neonatal care. LOCATe is based on the most recent guidelines and policy statements issued by the American Academy of Pediatrics, the American College of Obstetricians and Gynecologists, and the Society for Maternal-Fetal Medicine.

(2) By January 31, 2019, each birthing facility shall complete the CDC Maternal and Neonatal Levels of Care Assessment Tool (LOCATe) based upon the assessment of the facility as of December 31, 2018. For each succeeding year thereafter, each birthing facility shall use LOCATe to reassess its designation as of December 31st preceding the due date of January 31. The LOCATe tool (version 0.8.0) is incorporated by reference in this rule as published by the Centers for Disease Control and Prevention and available at www.health.mo.gov. This rule does not incorporate any subsequent amendments or additions. The completed assessment shall be sent to the Department of Health and Senior Services, PO Box 570, Jefferson City, MO 65102-0570 by January 31 each year.

(3) The level of care designation for neonatal care selected by the birthing facility within LOCATe shall be based upon the most current standards published by the American Academy of Pediatrics (AAP). The level of care designation for maternal care selected by the birthing facility within LOCATe shall be based upon the most current standards published by the American College of Obstetricians and Gynecologists (ACOG) and the Society for Maternal-Fetal Medicine.

(4) Each birthing facility shall have the results of their LOCATe assessment and level of care designations verified by the department, AAP, or ACOG once every three years. When submitting the annual LOCATe assessment, birthing facilities shall notify the department in writing about how they will have their results verified.

(5) If a birthing facility chooses to have the results of their LOCATe standardized assessment and level of care designations verified by either AAP or ACOG, the verification shall be conducted utilizing criteria collected in LOCATe. Verification processes conducted by AAP or ACOG may include criteria in addition to those included in LOCATe. Verification by the department will only include criteria collected in LOCATe.

(6) A birthing facility shall provide written notification to the department at any time their designation changes in between annual assessments.

(7) The department may initiate a review and monitor compliance with the provisions set forth in this rule at any time. The department will provide written notification to a birthing facility if it finds that verification does not match the self-designated levels of care.

*AUTHORITY: section 192.006, RSMo 2016, and section 192.380, RSMo Supp. 2017. Emergency rule filed Dec. 20, 2018, effective Dec. 30, 2018, expires June 27, 2019. Original rule filed Dec. 20, 2018.*

*PUBLIC COST: This proposed rule will cost state agencies or political subdivisions $184,802 for the initial three (3) year period and $116,456 annually thereafter.*

*PRIVATE COST: This proposed rule will cost private entities $172,852 for the initial three (3) year period and $68,908 annually thereafter.*

*NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed rule with Adam Crumbliss, Director, Department of Health and Senior Services, Division of Community and Public Health, PO Box 570, Jefferson City, MO 65102. To be considered, comments must be received within thirty (30) days after publication of this notice in the* ***Missouri Register****. No public hearing is scheduled.*

**FISCAL NOTE**
**PUBLIC COST**

**I. Department Title: Department of Health and Senior Services**
**Division Title: Division of Community and Public Health**
**Chapter Title: Maternal and Neonatal Care**

| | |
|---|---|
| **Rule Number and Name:** | 19 CSR 20-60.010. Levels of Maternal and Neonatal Care Designations |
| **Type of Rulemaking:** | Proposed Rule |

## II. SUMMARY OF FISCAL IMPACT

| Affected Agency or Political Subdivision | Estimated Cost of Compliance in the Aggregate |
|---|---|
| **Department of Health & Senior Services' costs =** | **$150,423 for the first three year period and $102,831 for annually thereafter** |
| **14 public hospitals =** | **$34,379 for the first three year period and $13,625 for annually thereafter** |
| **Total =** | **$184,802 for the first three year period and $116,456 for annually thereafter** |

## III. WORKSHEET

**DHSS Nurse**

One (1) nurse FTE annual salary of $54,892 with estimated fringe benefits of $28,098.

One-Time First Year expense (computer, office, furniture etc) for one FTE listed above - $7,910

On-going expenses (including travel, office supplies, network, printing, etc.) for one FTE - $19,841.

$54,892 (salary) + $28,098 (fringe benefits) + $19,841 (on-going expenses) X three (3) = $142,513 + $7,910 (one-time first year expense) = $150,423 for the first three year period.

$54,892 (salary) + $28,098 (fringe benefits) + $19,841 (on-going expenses) = $102,831 annually thereafter.

**Hospitals**

One (1) registered nurse X 14 public hospitals that will complete the LOCATe tool annually X $29/hour X eight (8) hours = $3,248 for the annual completion of the LOCATe tool.

One (1) registered nurse X 13 public hospitals that will have the department to conduct a verification review once every three (3) years X $29/hour X three (3) hours = $1,131 for the verification review by the department.

One (1) public hospital that will not have the department conduct a verification review X $30,000 cost of designations by American Academy of Pediatrics (AAP) and the American College of Obstetricians and Gynecologists (ACOG) to establish levels of maternal and neonatal care designations X one (1) time during a three year period = $30,000.

$3,248 + $1,131 + $30,000 = $34,379 for the first three year period.

One (1) registered nurse X 14 public hospitals that will complete the LOCATe tool annually X $29/hour X eight (8) hours = $3,248 + $377 ($1,131/3 per year for the verification review completed once every three (3) years by DHSS) + $10,000 ($30,000/3 per year cost of designation by AAP and ACOG) = $13,625 annually thereafter.

## IV. ASSUMPTIONS

One nurse will be needed by the department to implement this rule. The nurse will conduct a desk audit of the annual LOCATe tool submitted by each hospital. The nurse will also conduct a verification review for each of the hospitals which receive a verification review by the department once every three years.

There are 14 public hospitals that will complete the LOCATe tool because the hospitals have either a licensed obstetric bed or a neonatal intensive care unit. A registered nurse with the requisite obstetrics knowledge and experience from each hospital will complete the LOCATe tool. It is estimated that this nurse will earn approximately $29/hour and that it will take approximately eight (8) hours to complete the LOCATE tool each year. It is further estimated that it will take approximately three (3) hours for the nurse to participate in the verification review process performed by the department every three (3) years.

The department is estimating that approximately 13 public hospitals will have the department conduct its verification review once every three years. It is estimated that one (1) public hospital will not have the department conduct the verification review. This hospital will receive a neonatal designation with AAP which costs approximately $15,000 for the level that the hospital will be applying for that will last for three (3) years. This hospital will also receive a maternal designation with ACOG which costs approximately $15,000 for the level that the hospital will be applying for that will last for three (3) years.

**FISCAL NOTE**
**PRIVATE COST**

**I. Department Title: Department of Health and Senior Services**
**Division Title: Division of Community and Public Health**
**Chapter Title: Maternal and Neonatal Care**

| | |
|---|---|
| **Rule Number and Title:** | 19 CSR 20-60.010 Levels of Maternal and Neonatal Care Designation |
| **Type of Rulemaking:** | Proposed |

## II. SUMMARY OF FISCAL IMPACT

| Estimate of the number of entities by class which would likely be affected by the adoption of the rule: | Classification by types of the business entities which would likely be affected: | Estimate in the aggregate as to the cost of compliance with the rule by the affected entities: |
|---|---|---|
| **72** | **Hospitals** | **$172,533 for the first three year period and $68,647 for annually thereafter** |
| **1** | **Birthing center** | **$319 for the first three year period and $261 annually thereafter** |
| **Total =** | | **$172,852 for the first three year period and $68,908 for annually thereafter** |

## III. WORKSHEET

**Hospitals**

One (1) registered nurse X 72 private hospitals that will complete the LOCATe tool annually X $29/hour X eight (8) hours = $16,704 for the annual completion of the LOCATe tool.

One (1) registered nurse X 67 private hospitals that will have the department conduct a verification review once every three (3) years X $29/hour X three (3) hours = $5,829 for the verification review by the department.

Five (5) private hospitals that will not have the department conduct a verification review X $30,000 cost of designations by American Academy of Pediatrics (AAP) and the American College of Obstetricians and Gynecologists (ACOG) to establish levels of

maternal and neonatal care designations X one (1) time during a three year period = $150,000.

$16,704 + $5,829 + $150,000 = $172,533 for the first three year period.

One (1) registered nurse X 72 private hospitals that will complete the LOCATe tool annually X $29/hour X eight (8) hours = $16,704 + $1,943 ($5,829/3 years for the verification review completed once every three (3) years by DHSS) + $50,000 ($150,000/3 per year cost of designation by AAP and ACOG) = $68,647 annually thereafter.

**Birthing center**

One (1) registered nurse X one (1) private birthing center that will complete the LOCATe tool annually X $29/hour X eight (8) hours = $232 for the annual completion of the LOCATe tool.

One (1) registered nurse X one (1) private birthing center that will have the department conduct a verification review once every three (3) years X $29/hour X three (3) hours = $87 for the verification review by the department.

$232 + $87 = $319 for the first three year period.

One (1) registered nurse X one (1) private birthing center that will complete the LOCATe tool annually X $29/hour X eight (8) hours = $232 + $29 ($87/3 per year for the verification review completed once every three (3) years by DHSS) = $261 annually thereafter.

## IV. ASSUMPTIONS

There are 72 private hospitals that will complete the LOCATe tool because the hospitals have either a licensed obstetric bed or a neonatal intensive care unit. A registered nurse with the requisite knowledge and experience from each hospital will complete the LOCATe tool. It is estimated that this nurse will earn approximately $29/hour and that it will take approximately eight (8) hours to complete the LOCATE tool each year. It is further estimated that it will take approximately three (3) hours for the nurse to participate in the verification review process performed by the department every three (3) years.

The department is estimating that approximately 67 private hospitals will have the department conduct its verification review once every three years. It is estimated that five (5) private hospitals will not have the department conduct the verification reviews. These hospitals will receive a neonatal designation with AAP which costs approximately $15,000 for the level that the hospital will be applying for that will last for three (3) years. These hospitals will also receive a maternal designation with ACOG which costs approximately $15,000 for the level that the hospital will be applying for that will last for three (3) years.

## Title 20—DEPARTMENT OF INSURANCE, FINANCIAL INSTITUTIONS AND PROFESSIONAL REGISTRATION
## Division 2110—Missouri Dental Board
## Chapter 2—General Rules

### PROPOSED RESCISSION

**20 CSR 2110-2.260 Certification Requirements—Licensees Employed by or Contracting with Federally Qualified Health Centers**. This rule established the certification requirements of dentists and dental hygienists employed by, or contracting with, federally qualified health centers pursuant to HS HCS SS SS SCS for Senate Bill No. 1122 of the 92nd General Assembly (2004).

*PURPOSE: This rule is being rescinded pursuant to House Bill 1268, effective August 28, 2018, which removed the affidavit requirement from statutory language.*

*AUTHORITY: sections 332.031, RSMo 2000 and 332.081 and 332.321, RSMo Supp. 2004. This rule originally filed as 4 CSR 110-2.260. Original rule filed April 12, 2005, effective Oct. 30, 2005. Moved to 20 CSR 2110-2.260, effective Aug. 28, 2006. Rescinded: Filed Dec. 18, 2018.*

*PUBLIC COST: This proposed rescission will not cost state agencies or political subdivisions more than five hundred dollars ($500) in the aggregate.*

*PRIVATE COST: This proposed rescission will not cost private entities more than five hundred dollars ($500) in the aggregate.*

*NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed rescission with the Missouri Dental Board, PO Box 1367, Jefferson City, MO 65102, by facsimile at 573-751-8216, or via email at dental@pr.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the **Missouri Register**. No public hearing is scheduled.*

This section will contain the final text of the rules proposed by agencies. The order of rulemaking is required to contain a citation to the legal authority upon which the order of rulemaking is based; reference to the date and page or pages where the notice of proposed rulemaking was published in the *Missouri Register*; an explanation of any change between the text of the rule as contained in the notice of proposed rulemaking and the text of the rule as finally adopted, together with the reason for any such change; and the full text of any section or subsection of the rule as adopted which has been changed from that contained in the notice of proposed rulemaking. The effective date of the rule shall be not less than thirty (30) days after the date of publication of the revision to the *Code of State Regulations*.

The agency is also required to make a brief summary of the general nature and extent of comments submitted in support of or opposition to the proposed rule and a concise summary of the testimony presented at the hearing, if any, held in connection with the rulemaking, together with a concise summary of the agency's findings with respect to the merits of any such testimony or comments which are opposed in whole or in part to the proposed rule. The ninety-(90-) day period during which an agency shall file its Order of Rulemaking for publication in the *Missouri Register* begins either: 1) after the hearing on the Proposed Rulemaking is held; or 2) at the end of the time for submission of comments to the agency. During this period, the agency shall file with the secretary of state the order of rulemaking, either putting the proposed rule into effect, with or without further changes, or withdrawing the proposed rule.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 10—Air Conservation Commission
## Chapter 2—Air Quality Standards and Air Pollution Control Rules Specific to the Kansas City Metropolitan Area

### ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo 2016, the commission amends a rule as follows:

**10 CSR 10-2.205** Control of Emissions From Aerospace Manufacture and Rework Facilities **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 1, 2018 (43 MoReg 2039-2042). No changes were made in the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received eight (8) comments on this rulemaking: two (2) from a concerned citizen, one (1) from Missouri Coalition for the Environment (MCE), two (2) from the U.S. Environmental Protection Agency (EPA), one (1) from The Boeing Company, one (1) from Newman, Comley, and Ruth P.C., and one (1) from St. Louis County Department of Public Health.

Due to similar concerns expressed in the following two (2) comments, one (1) response that addresses these concerns is at the end of these two (2) comments.

COMMENT #1: A concerned citizen commented, "Public hearings and public access are extremely important to our democracy."
COMMENT #2: A concerned citizen also commented, "again, public hearings and public access are essential to our democracy."
RESPONSE: The department appreciates the comment and general support of our public hearing process. No changes were made to the rule text as a result of these comments.

COMMENT #3: The MCE commented to not change this CSR.
RESPONSE: The department understands the concern, but reassures the changes to this regulation are improving the rule's clarity while maintaining the same level of air quality protection. No changes were made to the rule text as a result of this comment.

COMMENT #4: The EPA commented that there are references in this rule to 10 CSR 10-6.030(22); however, section (22) does not currently exist in 10 CSR 10-6.030 Sampling Methods. The EPA would not act on this state implementation plan (SIP) revision submission until a SIP revision submission for 10 CSR 10-6.030 was also submitted.
RESPONSE: The department is currently in the process of amending rule 10 CSR 10-6.030 Sampling Methods for Air Pollution Sources and plans to submit this rule for inclusion into the SIP before, or concurrently with, the submittal to EPA of amendments to 10 CSR 10-2.205. No changes were made to the rule text as a result of this comment.

COMMENT #5: The EPA encourages the department to reconsider adding references to 10 CSR 10-6.030(22) in subsections (5)(A) and (5)(C) of this rule because these sections already specify which test methods to use and where they can be found in the Code of State Regulations. The EPA states, it may be unnecessary to divert the public to another state regulation which incorporates a federal regulation by reference and provides no additional clarity than what is already specified in those subsections.
RESPONSE: The department appreciates this comment and for all air rules found in 10 CSR 10-Chapters 1–6, where stack testing methods or guidance documents are mentioned more than once, a reference to rule 10 CSR 10-6.030 reduces cumbersome rule text required under section 536.031.4., RSMo. The purpose of 10 CSR 10-6.030 is to manage the incorporations by reference of various test methods under one (1) rule where publication dates and addresses can easily be updated under a single rulemaking, as necessary. No changes were made to the rule text as a result of this comment.

COMMENT #6: The Boeing Company commented in support of the proposed revisions that eliminate regulatory overlap with hazardous waste rules.
RESPONSE: The department appreciates this comment. No changes were made to the rule text as a result of this comment.

Due to similar concerns expressed in the following two (2) comments, one (1) response that addresses these concerns is at the end of these two (2) comments.

COMMENT #7: Newman, Comley, and Ruth P.C. made a general comment that removing the word "shall" from a rule requirement could be interpreted that the requirement is no longer necessary. Regulations must be clear and concise as to the intent of the regulation. The department should review all instances of deleting the word "shall" and consider retaining it.

COMMENT #8: The St. Louis County Department of Public Health commented in support of Comment #7 because regulation requirements must be clear for enforcement purposes.
RESPONSE: The department appreciates these concerns over removal of the word "shall" in rule text. All 10 CSR 10 rules were reviewed in compliance with Executive Order 17-03 with the purpose of making rule requirements clear. Staff reviewed the executive order rulemakings and determined that, in certain instances, the removal of the word "shall" may be interpreted to suggest that a previously mandatory obligation had become discretionary. For this rulemaking, staff re-reviewed the use of the word "shall" and, since removal of the word "shall" did not change the regulatory requirement, no changes were made to the rule text as a result of these comments.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 10—Air Conservation Commission
## Chapter 2—Air Quality Standards and Air Pollution Control Rules Specific to the Kansas City Metropolitan Area

## ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo 2016, the commission amends a rule as follows:

10 CSR 10-2.230 is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 1, 2018 (43 MoReg 2042-2046). Those sections with changes are reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received eight (8) comments from five (5) sources: Newman, Comley, and Ruth P.C.; the St. Louis County Department of Public Health; department staff; U.S. Environmental Protection Agency (EPA); and the Missouri Coalition for the Environment (MCE).

COMMENT #1: Newman, Comley, and Ruth P.C. commented that removing the word "shall" from a rule requirement could be interpreted that the requirement is no longer necessary. Regulations must be clear and concise as to the intent of the regulation. The department should review all instances of deleting the word "shall" and consider retaining the word.
COMMENT #2: The St. Louis County Department of Public Health commented in support of Comment #1 because regulation requirements must be clear for enforcement purposes.
RESPONSE: The department appreciates these concerns over the removal of the word "shall" from rule text. All 10 CSR 10 rules were reviewed in compliance with Executive Order 17-03 with the purpose of making rule requirements clear. Staff reviewed the rulemakings and determined that, in certain instances, the removal of the word "shall" may be interpreted to suggest that a previously mandatory obligation had become discretionary. For this rulemaking, staff re-reviewed the use of the word "shall" and, since removal of the word "shall" did not change the regulatory requirement, no changes were made to the rule text as a result of these comments.

COMMENT #3: The St. Louis County Department of Public Health expressed support for this rule revision.
RESPONSE: The department appreciates the support. No changes were made to the rule text as a result of this comment.

COMMENT #4: Department staff commented that there is an error in the formula in paragraph (5)(B)1. that needs correction. The values above and below the summation sign need to be swapped.
RESPONSE AND EXPLANATION OF CHANGE: The department is correcting the error in the formula in paragraph (5)(B)1. as recommended.

COMMENT #5: The EPA commented that, as previously commented, where the department is introducing definitions not previously used (e.g., can coating), EPA recommends that the department use already codified definitions found in the Code of Federal Regulations or in the State Implementation Plan (SIP) where available.
RESPONSE: The department is placing relevant definitions back in the rules, rather than maintaining the definitions in the definitions rule, 10 CSR 10-6.020. All definitions being moved into this rule are from those already codified in 10 CSR 10-6.020. No changes were made to the rule text as a result of this comment.

COMMENT #6: The EPA commented that while the department's responses to EPA's comments on this rule's Regulatory Impact Report indicates that the department intends to delete the definition of "can coating," the proposed rule text on the Missouri Secretary of State webpage still includes the definition "can coating."
RESPONSE: The proposed rulemaking language did not include the definition of "can coating". No changes were made to the rule text as a result of this comment.

COMMENT #7: The EPA commented that, as previously commented, on the department's Regulatory Impact Report, the department is adding exemptions to 10 CSR 10-2.230 at subsection (1)(C). The department will need to submit a demonstration with the SIP submission showing how the added exemptions meet the requirements of Clean Air Act sections 110(l) and 193 of the also known as the "anti-backsliding" provisions. These sections relate to EPA's authority to approve a SIP revision that removes or modifies control measure(s) in the SIP only after the state has demonstrated that such a removal or modification will not interfere with attainment of the National Ambient Air Quality Standards, Rate of Progress, Reasonable Further Progress or any other applicable requirement of the Clean Air Act.
RESPONSE: Emissions will not increase with the proposed rule amendment and the revision will meet CAA sections 110(l) and 193 requirements. There is no negative impact on air quality. No changes were made to the rule text as a result of this comment.

COMMENT #8: The MCE commented to not change this CSR.
RESPONSE: The department understands the concern, but reassures the changes to this regulation are improving the rule's clarity while maintaining the same level of air quality protection. No changes were made to the rule text as a result of this comment.

**10 CSR 10-2.230 Control of Emissions From Industrial Surface Coating Operations**

(5) Test Methods. Use the methods in subsections (5)(A)–(C) as applicable and appropriate to determine compliance with section (3) requirements.

(B) For subsection (3)(B)—

1. Compliance with emission limits may be demonstrated with EPA Method 24 as specified in 10 CSR 10-6.030(22) using the one (1)-hour bake. Emission performance is based on the daily volume-weighted average of all coatings used in each industrial surface coating operation as delivered to the coating applicator(s) on a coating line.The daily volume-weighted average (DAVGvw) is calculated by the following formula:

$$DAVG_{VW} = \frac{\sum_{i=1}^{n} (A_i \times B_i)}{C}$$

Where: A = daily gal. each coating used (minus water and exempt solvents) in a industrial surface coating operation.

B = lbs. VOC/gal coating (minus water and exempt solvents).

C = total daily gal. coating used (minus water and exempt solvents) in a industrial surface coating operation.

n = number of all coating used in a industrial surface coating operation; or

2. Compliance with the emission limits in subsection (3)(B) may be demonstrated on pounds of VOC per gallon of coating solids basis. The demonstration is made by first converting the emission limit in subsection (3)(B) to pounds of VOC per gallon of coating solids as shown in the following three (3) steps:

| | | | | |
|---|---|---|---|---|
| 1) | lbs. VOC per gallon of coating minus water & exempt solvents / 7.36 lbs. per gallon | (Emission Limit from (3)(B)) (average density of solvents used to originally establish the emission limit) | = | volume fraction of VOC |
| 2) | 1 – Volume fraction of VOC | = | | Volume fraction of solids |
| 3) | lbs. VOC per gallon of coating minus water & exempt solvents / volume fraction of solids | (Emission Limit from (3)(B)) | = | lbs. VOC / gallon of coating solids |

This value is the new compliance figure. The VOC per gallon of coating solids for each coating used is then determined with EPA Method 24 as specified in 10 CSR 10-6.030(22) using the one (1)-hour bake. The composite daily volume-weighted average of pounds of VOC per gallon of coating solids as tested for the actual coatings used is compared to the new compliance figure. Source operations on a coating line using coatings with a composite actual daily volume-weighted average value less than or equal to the new compliance figure are in compliance with this regulation.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 10—Air Conservation Commission
## Chapter 5—Air Quality Standards and Air Pollution Control Rules Specific to the St. Louis Metropolitan Area

### ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo 2016, the commission amends a rule as follows:

10 CSR 10-5.220 is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 1, 2018 (43 MoReg 2046-2052). Those sections with changes are reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received twenty-nine (29) comments from seven (7) sources: Missouri Coalition for the Environment (MCE), U.S. Environmental Protection Agency (EPA), Department staff, Newman, Comley, and Ruth P.C., St. Louis County Department of Public Health, Missouri Petroleum Markets & Convenience Store Association (MPCA), and Petroleum Storage Tank Insurance Fund (PSTIF).

COMMENT #1: The MCE commented to not change this CSR.
RESPONSE: The department understands the concern, but reassures the changes to this regulation are improving the rule's clarity while maintaining the same level of air quality protection. No changes were made to the rule text as a result of this comment.

COMMENT #2: The EPA commented that, as previously commented, the rule text proposes to change the applicability of this rule in paragraph (3)(C)1. from tanks that are between 500 gallons up to 1,000 gallons to tanks that are 550 gallons up to 1,000 gallons. Because of the change in applicability, the department will need to ensure that department's State Implementation Plan submission meets the requirements of sections 110(l) and 193 of the Clean Air Act. It should be noted that the department did rely on this regulation as part of its maintenance plan for the 1997 PM2.5 National Ambient Air Quality Standards.

RESPONSE: The department has learned that most tanks built in the proposed affected range are already built to comply with the requirements in (3)(C)1. while tanks less than 550 gallons generally would need to be modified to comply. Narrowing the affected range does not justify the increased burden to the regulated community to retrofit these tanks. Therefore, there is still no change to the rule text as a result of this comment.

COMMENT #3: The EPA commented that, as previously commented, it recommends that the department add information to the rule at part (3)(C)1.C.(III) explaining how the staff director will determine equivalency of the pressure/vacuum valve.

The department response to the draft rule text comment states: "The draft language provides for the staff director to approve a pressure/vacuum valve that is equivalent to that certified by California Air Resource Board (CARB). We feel this equivalent language is adequate for the smaller size tanks covered under this paragraph and is protective of air quality. Adding specific test method requirements such as EPA recommends would not be consistent with how larger tank components are addressed in paragraphs (3)(C)2. and (3)(C)3."

The EPA recognizes that the rule allows flexibility for approval of components for larger tanks; however, the EPA is still concerned that the rule as drafted does not specify a way for the staff director to determine equivalency to a pressure/vacuum valve that is CARB certified. The EPA continues to recommend that the department add information to part (3)(C)1.C.(III). For example, language could be added indicating that the staff director will determine that a pressure/vacuum valve is equivalent if it has met the alternative test method requirements in 40 CFR § 63.7(f) as specified in 40 CFR § 63.11120(a)(l)(ii). The EPA is concerned about the approvability of this rule in the absence of this additional language.

RESPONSE: The proposed rule text specifies that the approval of pressure/vacuum valve be based upon being equivalent to that certified by CARB. This language is consistent with how larger tank components are addressed in paragraphs (3)(C)2. And (3)(C)3. This proposed language is adequate for smaller size tanks. No change was made to the rule text as a result of this comment.

Due to similar concerns expressed in the following three (3) comments, one (1) response that addresses these concerns is at the end of these three (3) comments.

COMMENT #4: Since proposal of the rule amendment, department staff determined that the proposed amendment may be interpreted to suggest that a previously mandatory obligation had become discretionary in subparagraphs (3)(A)1.B. and (3)(F)4.B., and subsection (4)(B). The proposed amendment would modify the language of that requirement from 'shall' to 'has to' or 'have to.' Because those terms may have different legal effect, the change may be misinterpreted.
COMMENT #5: Newman, Comley, and Ruth P.C. made a general comment that removing the word "shall" from a rule requirement could be interpreted that the requirement is no longer necessary. Regulations must be clear and concise as to the intent of the regulation. The department should review all instances of deleting the word "shall" and consider retaining it.
COMMENT #6: The St. Louis County Department of Public Health commented in support of Comment #5 because regulation requirements must be clear for enforcement purposes.
RESPONSE AND EXPLANATION OF CHANGE: The department appreciates these concerns over removal of the word "shall" in rule text. All 10 CSR 10 rules were reviewed in compliance with Executive Order 17-03 with the purpose of making rule requirements clear. Staff reviewed the executive order rulemakings and determined that, in certain instances, the removal of the word "shall" may be interpreted to suggest that a previously mandatory obligation had become discretionary. For this rulemaking, staff is revising the language in subparagraphs (3)(A)1.B. and (3)(F)4.B., and subsection (4)(B) to retain the word "shall" in order to clarify the obligation for facilities.

COMMENT #7: The MPCA supports removal of Stage II requirements and elimination of all reference to the Missouri Performance Evaluation Testing Procedures (MOPETP).
RESPONSE: The proposed rulemaking language did not include references to Stage II and MOPETP references were removed with a previous rulemaking. No change was made to the rule text as a result of these comments.

COMMENT #8: The MPCA commented that the proposed amendment would prohibit aboveground storage tanks (ASTs) larger than 1,000 gallons at gasoline dispensing facilities. This would place a hardship on some businesses that currently have such tanks in use. They requested that the department "grandfather" all existing aboveground storage tanks, as doing so will not cause any deterioration of air quality from what it currently is. In addition, they noted that other metropolitan areas, including East St. Louis, allow installation of new ASTs larger than 1,000 gallons for certain commercial/industrial facilities. They requested that the rule be revised to allow for waiver of the prohibition by the department on a case-by-case basis.
RESPONSE: The current rule does not allow ASTs greater than one thousand (1,000) gallons at gasoline dispensing facilities (GDFs) because MOPETP never approved vapor recovery equipment for ASTs. This rulemaking will simply codify this long-standing prohibition. The department is not aware of any ASTs at GDFs in the St. Louis area. ASTs at facilities other than GDFs, such as commercial or industrial facilities, are not affected by the prohibition. Since ASTs inherently emit more volatile organic compounds (VOCs) than equivalent underground tanks, allowing new ASTs above 1,000 gallons at GDFs would increase emissions, adversely impact air quality in the St. Louis ozone nonattainment area, and jeopardize EPA's approval of the revised rule. The department would be willing to consider allowing CARB approved, Enhanced Vapor Recovery (EVR) ASTs in a future rulemaking. No change was made to the rule text as a result of this comment.

COMMENT #9: MPCA commented that the current requirement specifying use of a pressure/vacuum valve certified by the CARB at 3" water column pressure (wcp) and 8" water column volume (wcv) does not work in the real world, and owners who meet this requirement are often then forced into non-compliance with the department's underground storage tank (UST) rules, as the valves cause their automatic tank gauges to malfunction. They do not oppose the requirement that valves have a 3"wcp feature to prevent emission of volatile hydrocarbons during fuel delivery, but the vacuum requirement is problematic. The MPCA appreciates that the proposed rule attempts to alleviate this problem by stating "Owners and operator of GDFs with monthly throughput greater than one hundred thousand (100,000) gallons may use a vapor recovery system that deviates from the requirements of subparagraph (3)(C)2A. of this rule only if the vapor recovery system is approved by the director and has a collection efficiency of at least ninety-eight percent (98%)." They stated the proposed language is inadequate because the problem also occurs at some facilities with smaller throughputs and appears to require each tank owner to approach the department individually to request approval of his/her alternate equipment. The MPCA requested that, once a particular device has been demonstrated to the department's satisfaction that it has a collection efficiency of at least 98%, the rule should authorize the director of the department's Air Pollution Control Program to approve the device one time, after which any UST owner/operator could use that device and be in compliance with the rule.
RESPONSE: The department is aware of the problem of excessive tank vacuum and proposed a change in the wording during the proposed rulemaking. The department's proposed rulemaking has language in part (3)(C)1.C.(III) to allow the staff director to approve a pressure/vacuum valve and expanded the pressure specifications to meet rule requirements. The proposed rulemaking changed the valve specification to allow facilities more options and reduce burden. No change was made to the rule text as a result of this comment.

COMMENT #10: The MPCA commented that they would prefer elimination of the permit requirement for new installations. They noted that the department would still know of such new installations because the department's UST rules require notification prior to installation and Missouri's Emergency Planning and Community Right-To-Know Act (EPCRA) requires annual notice of such facilities. They stated the requirement in this rule to obtain a permit prior to undertaking any "modification" of the tank/piping or dispensing equipment creates a barrier to compliance with the UST rules, and requested the proposed rule be revised so it simply requires the owner/operator to give notice of such work via electronic submission.
RESPONSE: The proposed rulemaking language did not include a permit requirement for new installations. No change was made to the rule text as a result of these comments.

COMMENT #11: The MPCA commented that removing paragraph (3)(G)6. eliminates the need for the department to respond to construction permit applications within 30 days. They oppose the change and requested the rule retain the requirement for timely response by the department.
RESPONSE: The proposed rulemaking language did not include a requirement for a construction permit application and added language requiring a notification process to replace the requirement for a construction permit application. The timeframe for the notification was also shortened to fourteen (14) days, down from thirty (30) days in the current rule. The shorter notification period in the proposed rulemaking benefits industry by allowing them to install or modify a gasoline dispensing facility in a more timely manner. No change was made to the rule text as a result of these comments.

COMMENT #12: The MPCA requested adding language to explicitly state that the owner/operator need not wait for department inspectors to be present to conduct tests after repairs.
RESPONSE AND EXPLANATION OF CHANGE: Language has been added to subparagraphs (3)(C)2.I., (3)(C)2.J., and (3)(F)1.B. stating that the staff director may observe the test at the completion

of repairs, but it is not required that the staff director be present and observe the test.

COMMENT #13: The MPCA commented that they strongly believe the fees associated with this rule and proposed amendments should be eliminated or at the very least drastically reduced. RESPONSE: The department removed fees as part of the proposed rulemaking. No change was made to the rule text as a result of this comment.

The PSTIF provided the following comments, which the MPCA incorporated as their comments. Therefore, each set of two (2) comments below contains one (1) response at the end of each set of two (2) comments.

COMMENT #14: The PSTIF, on behalf of the tank owners and operators insured by the Petroleum Storage Tank Insurance Fund, support the following changes on the proposed amendment.

— Changing the specifications for pressure/vacuum (p/v) valves from 3 inches wcp and 8 inches wcv to "positive pressure setting of 2.5-6.0 inches of water and negative pressure setting of 6.0-10.0 inches of water." This will allow tank owners access to a broader range of equipment options and hopefully will allow them to more easily comply with both this rule and the department's UST rules.

— The proposed change in paragraph (1)(C)8. that exempts tanks smaller than 1,000 gal from certain requirements in the rule.

— Exempting tanks between 500 and 550 gallons in (3)(C)1. from the requirement to have a submerged fill pipe, vapor tight caps and fittings, and CARB-approved p/v vent valve.

— Making the notice timeframe for new UST installations in (3)(F)1.A. match the notice timeframe in the department's UST rule, (i.e., 14 days), and eliminating the obtain a permit and pay a $100 fee.

— Eliminating the requirement to conduct another pressure/decay test after minor repairs, per subsection (3)(F).

— Eliminating the $100 fee when making minor repairs to UST equipment, such as replacing a spill bucket. This change will directly benefit PSTIF-insured tank owners who are required to promptly make repairs after UST inspections or lose their insurance coverage.

— The proposed change in paragraph (2)(K)1. aimed at clarifying that bulk plants with low throughput are exempt from certain requirements of the rule.

COMMENT #15: The MPCA submitted the same comments. RESPONSE: The department appreciates the PSTIF's and the MPCA's support of the proposed amendment and their involvement and input into the rulemaking process. No changes were made to the rule text as a result of these comments.

COMMENT #16: The PSTIF commented that the proposed change in paragraph (2)(K)1. aimed at clarifying that bulk plants with low throughput are exempt from certain requirements of the rule. However, putting a definition of "Gasoline Distribution Facility" within the definition of "Gasoline Dispensing Facility" seems awkward; further, please note it is not "the facility" that "transfers, loads," etc.

— As an alternative, since the terms "bulk plant" and "bulk terminal" are defined in the rule, perhaps a definition of "Gasoline Distribution Facility" should be included in the Definitions section; a suggested definition is: "A bulk terminal, bulk plant, pipeline terminal, or marine terminal."

— A different option would be to define "Gasoline Distribution Facility" without using the words "bulk plant" or "bulk terminal" and remove those two terms from the Definitions section of the rule.

— Either way, the department may want to consider retitling subsection (3)(B) to "Loading at Gasoline Distribution Facilities" and retitling subsection (3)(C) to "Gasoline Transfer at GDFs."

COMMENT #17: The MPCA submitted the same comment. RESPONSE AND EXPLANATION OF CHANGE: The department amended the definition of gasoline dispensing facility, added a definition for gasoline distribution facility, and deleted the definitions of bulk plant and bulk terminal to minimize confusion in section (2) as a result of this comment. This clarifies the definitions and removes unnecessary definitions. The section (2) definitions were renumbered as a result of the deletions and addition. We retained the subsection titles at (3)(B) and at (3)(C) to be consistent with the titles in 10 CSR 10-2.260.

COMMENT #18: The PSTIF commented - Should the reference to 550 gallons in paragraph (1)(C)3. be changed so it will match the new language in paragraph (3)(C)1.?
COMMENT #19: The MPCA submitted the same comment. RESPONSE AND EXPLANATION OF CHANGE: The department revised paragraph (1)(C)3. to reference 550 gallons as a result of this comment. This makes the wording consistent with that found in paragraph (3)(C)1.

COMMENT #20: The PSTIF commented - We suggest leaving the word "shall" in subparagraph (3)(A)1.B. or changing it to "must." Use of phrase "has to" seems awkward.
COMMENT #21: The MPCA submitted the same comment. RESPONSE AND EXPLANATION OF CHANGE: The department revised the language in subparagraph (3)(A)1.B. to retain the word "shall" in order to clarify the obligation for facilities as noted in response to Comment #4.

COMMENT #22: The PSTIF commented - Use of the phrase "has to" in new paragraph (3)(F)2. seems awkward. Also, it seems the word "installation" should be replaced by "partial modification." The following is suggested: "Any owner or operator of an existing GDF that requires a partial modification...shall notify the department using an approved form before making the partial modification. The notification must include a description of the planned partial modification..."

COMMENT #23: The MPCA submitted the same comment. RESPONSE AND EXPLANATION OF CHANGE: The department revised the language in two (2) locations in paragraph (3)(F)2. to replace the words "has to" with "shall" in order to clarify the obligation for facilities in response to this comment. We also revised the language as suggested in the comment, replacing "installation" with "partial modification" and using "shall" instead of "must", to make the wording more accurate.

COMMENT #24: The PSTIF commented - In new paragraph (3)(F)4., we suggest leaving the word "shall" or changing it to "must." The phrase "have to" seems awkward.
COMMENT #25: The MPCA submitted the same comment. RESPONSE: The department revised the language in subparagraph (3)(F)4.B. to retain the word "shall" in order to clarify the obligation for facilities as noted in response to Comment #4.

COMMENT #26: The PSTIF commented - In new subsection (4)(B), we suggest leaving the word "shall" or changing it to "must." The phrase "have to" seems awkward.
COMMENT #27: The MPCA submitted the same comment. RESPONSE: The department revised the language in subsection (4)(B) to retain the word "shall" in order to clarify the obligation for facilities as noted in response to Comment #4.

COMMENT #28: The PSTIF commented - The new language in paragraph (3)(F)5. seems awkward, in that an owner is prohibited from "completing" an installation until the department approves it, but it's not clear how the department can approve an installation until it is complete. Further, it's not clear whether the language is intended to

apply only to new installations, or also to existing GDFs where vapor recovery equipment has recently been replaced or repaired. We suggest a possible revision, as follows: "If the department discovers vapor recovery equipment is being installed that does not comply with the requirements of subsection (3)(F) of this rule, the department's authorized representative may require that installation cease and compliant equipment be installed before the GDF is put into operation. If the department discovers vapor recovery equipment has been replaced or repaired in a manner that makes it non-compliant with subsection (3)(F) of this rule, the department's authorized representative may require replacement of the non-compliant equipment with compliant equipment."

COMMENT #29: The MPCA submitted the same comment.

RESPONSE AND EXPLANATION OF CHANGE: The department revised the language in paragraph (3)(F)5. as a result of this comment to match the suggested wording in the comment and provide clarification to the rule language.

**10 CSR 10-5.220 Control of Emissions During Petroleum Liquid Storage, Loading, and Transfer**

(1) Applicability.

(C) Exemptions to This Rule and/or Specific Areas of This Rule.

1. Petroleum storage tanks. Subsection (3)(A) of this rule does not apply to petroleum storage tanks that—

A. Store processed and/or treated petroleum or condensate at a drilling and production installation prior to custody transfer;

B. Contain a petroleum liquid with a true vapor pressure less than 27.6 kilopascals (kPa) (4.0 psia) at ninety degrees Fahrenheit (90 °F);

C. Are welded construction, and equipped with a metallic-type shoe primary seal and have a shoe-mounted secondary seal or closure devices of demonstrated equivalence approved by the staff director; and

D. Store waxy, heavy pour crude oil.

2. Gasoline loading. Subsection (3)(B) of this rule does not apply to a gasoline distribution facility whose average monthly throughput of gasoline is less than or equal to one hundred twenty thousand (120,000) gallons when averaged over the most recent calendar year, provided the gasoline distribution facility loads gasoline by submerged filling and—

A. Upon request of the staff director, owners or operators of gasoline distribution facilities submit a report to the staff director on a form supplied by the department stating the gasoline throughput for each month of the previous calendar year;

B. Delivery vessels purchased after December 31, 1995, are Stage I equipped;

C. Owners or operators of a gasoline distribution facility maintain records of gasoline throughput and gasoline delivery; and

D. Delivery vessels operated by an exempt installation do not deliver to Stage I controlled tanks unless the delivery vessel is equipped with and employs Stage I controls.

3. This rule does not apply to stationary gasoline tanks with a capacity of less than or equal to five hundred fifty (550) gallons.

4. Subsection (3)(E) of this rule does not apply to any gasoline dispensing facility (GDF) with one thousand (1,000) gallon or smaller tank(s) and monthly throughput of less than or equal to ten thousand (10,000) gallons of gasoline through the tanks.

5. Paragraph (3)(C)2. of this rule does not apply to gasoline transfers made to storage tanks equipped with floating roofs or their equivalent.

6. Subsection (3)(C) of this rule does not apply to any storage tank having a capacity less than or equal to two thousand (2,000) gallons used exclusively for the fueling of agricultural equipment.

7. Subsection (3)(E) of this rule does not apply to any stationary storage tank used primarily for the fueling of agricultural equipment.

8. Subsection (3)(F) does not apply to any gasoline storage tank having a capacity of less than or equal to one thousand (1,000 gallons).

(2) Definitions.

(A) Agricultural equipment—Any equipment used exclusively for agricultural purposes on land owned or leased for the production of farm products.

(B) Cargo tank—A delivery tank truck or railcar which is loading gasoline or which has loaded gasoline on the immediately previous load.

(C) Condensate (hydrocarbons)—A hydrocarbon liquid separated from natural gas which condenses due to changes in the temperature or pressure, or both, and remains liquid at standard conditions.

(D) Crude oil—A naturally occurring mixture consisting of hydrocarbons and sulfur, nitrogen, or oxygen derivatives of hydrocarbons (or a combination of these derivatives), which is a liquid at standard conditions.

(E) Custody transfer—The transfer of produced crude oil or condensate, or both, after processing or treating, or both, in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

(F) Delivery vessel—A tank truck, trailer, or railroad tank car.

(G) External floating roof—A storage vessel cover in an open top tank consisting of a double deck or pontoon single deck which rests upon and is supported by petroleum liquid being contained and is equipped with a closure seal(s) to close the space between the roof edge and tank wall.

(H) Gasoline—A petroleum liquid having a Reid vapor pressure four pounds (4 lbs) per square inch or greater.

(I) Gasoline dispensing facility (GDF)—Any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle and is not—

1. A gasoline distribution facility; or

2. A manufacturer of new motor vehicles performing initial fueling operations dispensing gasoline into newly assembled motor vehicles equipped with onboard refueling vapor recovery (ORVR) at an automobile assembly plant while the vehicle is still being assembled on the assembly line.

(J) Gasoline distribution facility—Any facility that receives gasoline by pipeline, ship or barge, or cargo tank and subsequently loads the gasoline into gasoline delivery vessels for transport to gasoline dispensing facilities.

(K) Lower explosive limit (LEL)—The lower limit of flammability of a gas or vapor at ordinary ambient temperatures expressed in percent of the gas or vapor in air by volume.

(L) Monthly throughput—The total volume of gasoline that is loaded into all gasoline storage tanks during a month, as calculated on a rolling thirty (30)-day average.

(M) Onboard refueling vapor recovery (ORVR)—A system on motor vehicles designed to recover hydrocarbon vapors that escape during refueling.

(N) Petroleum liquid—Petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery with the exception of Numbers 2–6 fuel oils as specified in ASTM D 396-17a, as specified in 10 CSR 10-6.040(12), gas turbine fuel oils Number 2-GT–4-GT, as specified in ASTM D 2880-15, as specified in 10 CSR 10-6.040(20), and diesel fuel oils Number 2-D and 4-D, as specified in ASTM D 975-18, as specified in 10 CSR 10-6.040(14).

(O) Staff director—Director of the Air Pollution Control Program of the Department of Natural Resources, or a designated representative.

(P) Stage I vapor recovery system—A system used to capture the gasoline vapors that would otherwise be emitted when gasoline is transferred from a loading installation to a delivery vessel or from a delivery vessel to a storage tank.

(Q) Stage II vapor recovery system—A system used to capture the gasoline vapors that would otherwise be emitted when gasoline is dispensed from a storage tank to the fuel tank of a motor vehicle. Stage II vapor recovery includes both Stage I and Stage II Vapor Recovery equipment and requirements, unless otherwise stated.

(R) Submerged fill pipe—Any fill pipe the discharge opening of which is entirely submerged when the liquid level is six inches (6") above the bottom of the tank. When applied to a tank that is loaded from the side, any fill pipe, the discharge opening of which is entirely submerged when the liquid level is eighteen inches (18") or twice the diameter of the fill pipe, whichever is greater, above the bottom of the tank.

(S) Submerged filling—The filling of a gasoline storage tank through a submerged fill pipe with a discharge no more than six inches (6") (no more than twelve inches (12") for submerged fill pipes installed on or before November 9, 2006) from the bottom of the tank. Bottom filling of gasoline storage tanks is included in this definition.

(T) True vapor pressure—The equilibrium partial pressure exerted by a petroleum liquid as determined in American Petroleum Institute, *Manual of Petroleum Measurement Standards*, Chapter 19.2, Evaporative Loss From Floating-Roof Tanks, 2012, as published by the American Petroleum Institute and incorporated by reference in this rule. Copies can be obtained from API Publishing Services, 1220 L Street, NW, Washington, DC 20005. This rule does not incorporate any subsequent amendments or additions.

(U) Vapor recovery system—A vapor gathering system capable of collecting the hydrocarbon vapors and gases discharged and a vapor disposal system capable of processing the hydrocarbon vapors and gases so as to limit their emission to the atmosphere.

(V) Vapor recovery system modification—Any repair, replacement, alteration, or upgrading of Stage I or Stage II vapor recovery control equipment or gasoline dispensing equipment equipped with Stage II vapor recovery beyond normal maintenance of the system as permitted by the staff director.

(W) Vapor tight—When applied to a delivery vessel or vapor recovery system as one that sustains a pressure change of no more than seven hundred fifty (750) pascals (three inches (3") of water) in five (5) minutes when pressurized to a gauge pressure of four thousand five hundred (4,500) pascals (eighteen inches (18") of water) or evacuated to a gauge pressure of one thousand five hundred (1,500) pascals (six inches (6") of water).

(X) Waxy, heavy pour crude oil—A crude oil with a pour point of fifty degrees Fahrenheit (50 °F) or higher as determined by the ASTM D 97-17b, as specified in 10 CSR 10-6.040(10).

(Y) Definitions of certain terms specified in this rule, other than those defined in this rule section, may be found in 10 CSR 10- 6.020.

(3) General Provisions.

(A) Petroleum Storage Tanks.

1. No owner or operator of petroleum storage tanks shall cause or permit the storage in any stationary storage tank of more than forty thousand (40,000) gallons capacity of any petroleum liquid having a true vapor pressure of one and five-tenths (1.5) pounds per square inch absolute (psia) or greater at ninety degrees Fahrenheit (90 °F), unless the storage tank is a pressure tank capable of maintaining working pressures sufficient at all times to prevent volatile organic compound (VOC) vapor or gas loss to the atmosphere or is equipped with one (1) of the following vapor loss control devices:

A. A floating roof, consisting of a pontoon type, double-deck type or internal floating cover or external floating cover, that rests on the surface of the liquid contents and is equipped with a closure seal(s) to close the space between the roof edge and tank wall. Storage tanks with external floating roofs shall meet the additional following requirements:

(I) The storage tank must be fitted with—

(a) A continuous secondary seal extending from the floating roof to the tank wall (rim-mounted secondary seal); or

(b) A closure or other device approved by the staff director that controls VOC emissions with an effectiveness equal to or greater than a seal required under subpart (3)(A)1.A.(I)(a) of this rule;

(II) All seal closure devices must meet the following requirements:

(a) There are no visible holes, tears, or other openings in the seal(s) or seal fabric;

(b) The seal(s) is intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall; and

(c) For vapor-mounted primary seals, the accumulated area of gaps exceeding 0.32 centimeters, one-eighth inch (1/8") width, between the secondary seal and the tank wall shall not exceed 21.2 cm2 per meter of tank diameter (1.0 in2 per foot of tank diameter);

(III) All openings in the external floating roof, except for automatic bleeder vents, rim space vents, and leg sleeves, must be equipped with—

(a) Covers, seals or lids in the closed position except when the openings are in actual use; and

(b) Projections into the tank which remain below the liquid surface at all times;

(IV) Automatic bleeder vents must be closed at all times except when the roof is floated off or landed on the roof leg supports;

(V) Rim vents must be set to open when the roof is being floated off the leg supports or at the manufacturer's recommended setting; and

(VI) Emergency roof drains must be provided with slotted membrane fabric covers or equivalent covers which cover at least ninety percent (90%) of the area of the opening;

B. A vapor recovery system with all storage tank gauging and sampling devices gas-tight, except when gauging or sampling is taking place. The vapor disposal portion of the vapor recovery system shall consist of an absorber system, condensation system, membrane system or equivalent vapor disposal system that processes the vapor and gases from the equipment being controlled; or

C. Other equipment or means of equal efficiency for purposes of air pollution control that may be approved by the staff director.

2. Control equipment described in subparagraph (3)(A)1.A. of this rule shall not be allowed if the petroleum liquid other than gasoline has a true vapor pressure of 11.1 psia or greater at ninety degrees Fahrenheit (90 °F). All storage tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

3. Reporting and record keeping shall be per subsection (4)(A) of this rule.

(C) Gasoline Transfer at GDFs.

1. No owner or operator of a gasoline storage tank or delivery vessel shall cause or permit the transfer of gasoline from a delivery vessel into a gasoline storage tank with a capacity greater than five hundred fifty (550) gallons and less than or equal to one thousand (1,000) gallons unless—

A. The gasoline storage tank is equipped with a submerged fill pipe extending unrestricted to within six inches (6") of the bottom of the tank and not touching the bottom of the tank, or the storage tank is equipped with a system that allows a bottom fill condition;

B. All gasoline storage tank caps and fittings are vapor-tight when gasoline transfer is not taking place; and

C. Each gasoline storage tank is vented via a conduit that is—

(I) At least two inches (2") inside diameter; and

(II) At least twelve feet (12') in height above grade; and

(III) Equipped with a pressure/vacuum valve that is certified by the California Air Resources Board (CARB) or equivalent as approved by the staff director. The pressure specifications for pressure/vacuum valves shall be a positive pressure setting of 2.5 to 6.0 inches of water and a negative pressure setting of 6.0 to 10.0 inches of water.

2. No owner or operator of a gasoline storage tank or delivery vessel shall cause or permit the transfer of gasoline from a delivery vessel into a gasoline storage tank with a capacity greater than one thousand (1,000) and less than forty thousand (40,000) gallons unless—

A. The gasoline storage tank is equipped with a Stage I vapor recovery system that is certified by a CARB Executive Order as having a collection efficiency of at least ninety-eight percent (98%);

B. The delivery vessel to these tanks is in compliance with subsection (3)(D) of this rule;

C. All vapor ports are poppeted fittings;

D. The delivery vessel is reloaded at installations complying with the provisions of subsection (3)(B) of this rule;

E. The vapor recovery system employs one (1) vapor line per product line during the transfer. The staff director may approve other delivery systems submitted to the department with test data demonstrating compliance with subparagraph (3)(C)2.A. of this rule;

F. All vapor hoses are at least three inches (3") inside diameter;

G. All product hoses are less than or equal to four inches (4") inside diameter;

H. Any component of the vapor recovery system that is not preventing vapor emissions as designed is repaired;

I. A department approved pressure decay test is completed and passed every three (3) years. The department must be notified at least seven (7) days prior to the test date to allow an observer the opportunity to be present. It is not required for the department to be present to observe the test. The test results shall be provided to the department within fourteen (14) days of the test event; and

J. A department approved pressure/vacuum valve test is completed and passed every three (3) years. The department must be notified at least seven (7) days prior to the test date to allow an observer the opportunity to be present. It is not required for the department to be present to observe the test. The test results shall be provided to the department within fourteen (14) days of the test event.

3. The staff director may approve a vapor recovery system or component that deviates from the requirements of subparagraph (3)(C)2.A. of this rule when provided documentation that—

A. The system or component has a collection efficiency of at least ninety-eight percent (98%); or

B. Compliance with the requirements of subparagraph (3)(C)2.A.of this rule would lead to noncompliance with other state or federal regulations or to improper functioning of the gasoline storage tank system.

4. Aboveground gasoline storage tanks at GDFs shall not have a capacity greater than one thousand (1,000) gallons.

5. This subsection does not prohibit safety valves or other devices required by government regulations.

(F) Requirements for vapor recovery systems associated with new GDF installations, complete vapor recovery system replacements associated with existing GDFs, partial vapor recovery system modifications associated with existing GDFs, and installation of GDFs with Stage I experimental technology.

1. Any owner or operator subject to paragraph (3)(C)2. installing a new GDF or modifying an existing GDF that requires a complete replacement of the Stage I vapor recovery system of one (1) or more underground storage tank shall—

A. Notify the department using an approved form at least fourteen (14) days before installation. The notification shall include complete diagrams, a thorough description of the planned installation, a detailed description of the storage tank(s), plumbing diagrams including vent lines, and a schedule of construction. The notification shall also include a list of CARB approved ninety-eight percent (98%) efficient equipment and/or reference department approval for the proposed Stage I vapor recovery system. The notice is valid for one hundred eighty (180) days from receipt by the department; and

B. Conduct and pass a department approved pressure decay test and a department approved pressure/vacuum valve test within thirty (30) days of construction completion. The department must be notified at least seven (7) days prior to the test date to allow an observer the opportunity to be present. It is not required for the department to be present to observe the test. The test results have to be provided to the department within fourteen (14) days of the test event.

2. Any owner or operator of an existing GDF that requires a partial modification to a Stage I vapor recovery system subject to paragraph (3)(C)2. shall notify the department using an approved form before making the partial modification. The notification shall include a description of the planned partial modification. The notification shall also include a list of CARB approved ninety-eight percent (98%) efficient equipment and/or reference department approval for the proposed Stage I vapor recovery system. The notice is valid for one hundred eighty (180) days from receipt by the department.

3. Experimental Stage I technology. The staff director may approve Stage I experimental technology for a specific GDF. Experimental technology may be approved for up to three (3) years for a limited number of GDFs under specific conditions determined by the staff director. GDFs applying for approval of experimental technology shall —

A. Submit an application for staff director approval at least ninety (90) days prior to beginning construction. The application shall include, but not be limited to:

(I) Complete diagrams and a thorough description of the planned installation;

(II) Plumbing diagrams including vent lines and material of all underground and aboveground plumbing; and

(III) Standards, test data, history, and related information for the proposed system;

B. Submit to the staff director a detailed plan for the construction and operation of the system. The plan shall include a description of the planned testing and record keeping for the GDF. The staff director may issue the construction permit when all conditions of the testing GDF are deemed satisfactory;

C. Display the construction permit in a prominent location during construction;

D. Install monitoring equipment to prove that the vapor recovery system is leaktight if requested by the staff director; and

E. Upon completion of testing, obtain and maintain on-site, in a prominent location, a current operating permit from the staff director for the specific innovative technology that is in operation. The permit shall specify the technology, the location, and the time period the technology will be tested.

4. Emergency Repairs.

A. Owners or operators of GDFs requiring emergency repair or replacement of Stage I vapor recovery system components subject to subsection (3)(C)2. may immediately begin corrective construction if the construction is in response to an accident or event that—

(I) Creates an abnormally high threat of fire;

(II) Poses an environmental hazard by allowing release of liquid product onto the ground or abnormal release of vapor into the air; and/or

(III) Threatens public safety; and

B. Owners or operators of GDFs electing to make emergency repair or replacement per subparagraph (3)(F)4.A. of this rule shall contact the department within forty-eight (48) hours of the commencement of the repair or replacement to determine what future action is required for compliance with this rule.

5. If the department discovers vapor recovery equipment is being installed that does not comply with the requirements of subsection (3)(F) of this rule, the department's authorized representative may require that installation cease and compliant equipment be installed before the GDF is put into operation. If the department discovers vapor recovery equipment has been replaced or repaired in a manner that makes it non-compliant with subsection (3)(F) of this

rule, the department's authorized representative may require replacement of the non-compliant equipment with compliant equipment.

(4) Reporting and Record Keeping.

(B) Owners or operators of gasoline distribution facilities subject to subsection (3)(B) of this rule shall keep complete records documenting the number of delivery vessels loaded and their owners. Records shall be kept for two (2) years and made available to the staff director within five (5) business days of a request.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 10—Air Conservation Commission
## Chapter 5—Air Quality Standards and Air Pollution Control Rules Specific to the St. Louis Metropolitan Area

### ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo 2016, the commission amends a rule as follows:

**10 CSR 10-5.295** Control of Emissions From Aerospace Manufacture and Rework Facilities **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 1, 2018 (43 MoReg 2052-2055). No changes were made in the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received six (6) comments on this rulemaking: one (1) from Missouri Coalition for the Environment (MCE), two (2) from the U.S. Environmental Protection Agency (EPA), one (1) from The Boeing Company, one (1) from Newman, Comley, and Ruth P.C., and one (1) from St. Louis County Department of Public Health.

COMMENT #1: The MCE commented to not change this CSR.
RESPONSE: The department understands the concern, but reassures the changes to this regulation are improving the rule's clarity while maintaining the same level of air quality protection. No changes were made to the rule text as a result of this comment.

COMMENT #2: The EPA commented that there are references in this rule to 10 CSR 10-6.030(22); however, section (22) does not currently exist in 10 CSR 10-6.030 Sampling Methods. The EPA would not act on this SIP revision submission until a SIP revision submission for 10 CSR 10-6.030 was also submitted.
RESPONSE: The department is currently in the process of amending rule 10 CSR 10-6.030 Sampling Methods for Air Pollution Sources and plans to submit this rule for inclusion into the SIP before, or concurrently with, the submittal to EPA of amendments to 10 CSR 10-5.295. No changes were made to the rule text as a result of this comment.

COMMENT #3: The EPA encourages the department to reconsider adding references to 10 CSR 10-6.030(22) in subsections (5)(A) and (5)(C) of this rule because these sections already specify which test methods to use and where they can be found in the Code of State Regulations. The EPA states, it may be unnecessary to divert the public to another state regulation which incorporates a federal regulation by reference and provides no additional clarity than what is already specified in those subsections.
RESPONSE: The department appreciates this comment and for all air rules found in 10 CSR 10-Chapters 1–6, where stack testing methods or guidance documents are mentioned more than once, a reference to rule 10 CSR 10-6.030 reduces cumbersome rule text required under section 536.031.4., RSMo. The purpose of 10 CSR 10-6.030 is to manage the incorporations by reference of various test methods under one (1) rule where publication dates and addresses can easily be updated under a single rulemaking, as necessary. No changes were made to the rule text as a result of this comment.

COMMENT #4: The Boeing Company commented in support of the proposed revisions that eliminate regulatory overlap with hazardous waste rules.
RESPONSE: The department appreciates this comment. No changes were made to the rule text as a result of this comment.

Due to similar concerns expressed in the following two (2) comments, one (1) response that addresses these concerns is at the end of these two (2) comments.

COMMENT #5: Newman, Comley, and Ruth P.C. made a general comment that removing the word "shall" from a rule requirement could be interpreted that the requirement is no longer necessary. Regulations must be clear and concise as to the intent of the regulation. The department should review all instances of deleting the word "shall" and consider retaining it.
COMMENT #6: The St. Louis County Department of Public Health commented in support of Comment #5 because regulation requirements must be clear for enforcement purposes.
RESPONSE: The department appreciates these concerns over removal of the word "shall" in rule text. All 10 CSR 10 rules were reviewed in compliance with Executive Order 17-03 with the purpose of making rule requirements clear. Staff reviewed the executive order rulemakings and determined that, in certain instances, the removal of the word "shall" may be interpreted to suggest that a previously mandatory obligation had become discretionary. For this rulemaking, staff re-reviewed the use of the word "shall" and, since removal of the word "shall" did not change the regulatory requirement, no changes were made to the rule text as a result of these comments.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 10—Air Conservation Commission
## Chapter 5—Air Quality Standards and Air Pollution Control Rules Specific to the St. Louis Metropolitan Area

### ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo 2016, the commission amends a rule as follows:

10 CSR 10-5.330 is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 1, 2018 (43 MoReg 2055-2073). Those sections with changes are reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received three (3) comments on this proposed amendment: one (1) from department staff, one (1) from Newman, Comley, and Ruth P.C., and one (1) from St. Louis County Department of Public Health.

COMMENT #1: Department staff commented that there are typographical corrections needed in subsections (2)(V), (3)(J), and (5)(C).

RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the department has made typographical corrections in subsections (2)(V), (3)(J), and (5)(C).

Due to similar concerns expressed in the following two (2) comments, one (1) response that addresses these concerns is at the end of these two (2) comments.

COMMENT #2: Newman, Comley, and Ruth P.C. made a general comment that removing the word "shall" from a rule requirement could be interpreted that the requirement is no longer necessary. Regulations must be clear and concise as to the intent of the regulation. The department should review all instances of deleting the word "shall" and consider retaining it.
COMMENT #3: The St. Louis County Department of Public Health commented in support of Comment #2 because regulation requirements must be clear for enforcement purposes.
RESPONSE: The department appreciates these concerns over removal of the word "shall" in rule text. All 10 CSR 10 rules were reviewed in compliance with Executive Order 17-03 with the purpose of making rule requirements clear. Staff reviewed the executive order rulemakings and determined that, in certain instances, the removal of the word "shall" may be interpreted to suggest that a previously mandatory obligation had become discretionary. For this rulemaking, staff re-reviewed the use of the word "shall" and, since removal of the word "shall" did not change the regulatory requirement, no changes were made to the rule text as a result of these comments.

**10 CSR 10-5.330 Control of Emissions From Industrial Surface Coating Operations**

(2) Definitions

(V) All terms beginning with V.

1. Vacuum-metalizing coating—The undercoat applied to the substrate on which the metal is deposited or the overcoat applied directly to the metal film. Vacuum metalizing/physical vapor deposition (PVD) is the process whereby metal is vaporized and deposited on a substrate in a vacuum chamber.

2. Vinyl coating—A functional, decorative, or protective topcoat or printing applied to vinyl-coated fabric or vinyl sheets.

3. Volatile organic compound (VOC)—See definition in 10 CSR 10-6.020.

(3) General Provisions. General provisions for specific coatings may be found in the following subsections of section (3) of this rule:

| Coating | Subsection |
|---|---|
| Large Appliance Coatings | (3)(A) |
| Metal Furniture Coatings | (3)(B) |
| Automobile and Light-Duty Truck Assembly Coatings | (3)(C) |
| Paper, Film, and Foil Coatings | (3)(D) |
| Magnet Wire Coatings | (3)(E) |
| Coil Coatings | (3)(F) |
| Can Coatings | (3)(G) |
| Vinyl and Fabric Coatings | (3)(H) |
| Flat Wood Paneling Coatings | (3)(I) |
| Miscellaneous Metal and Plastic Parts Coatings | (3)(J) |
| Industrial Adhesive Application | (3)(K) |

(J) Miscellaneous Metal and Plastic Parts Coatings.

1. The requirements in this subsection apply to the surface coating of all other miscellaneous metal and plastic parts including, but not limited to, the following:

A. Large and small farm implements and machinery;
B. Railroad cars;
C. Small household appliances;
D. Office equipment;
E. Commercial and industrial machinery and equipment;
F. Any other industrial category that coats metal parts or products under the Standard Industrial Classification Code of major groups #33, #34, #35, #36, #37, #38, and #39;
G. Fabricated metal products;
H. Molded plastic parts;
I. Automotive or transportation equipment;
J. Interior or exterior automotive parts;
K. Construction equipment;
L. Motor vehicle accessories;
M. Bicycles and sporting goods;
N. Toys;
O. Recreational vehicles;
P. Pleasure craft (recreational boats);
Q. Extruded aluminum structural components;
R. Heavy-duty vehicles;
S. Lawn and garden equipment;
T. Business machines;
U. Laboratory and medical equipment;
V. Electronic equipment;
W. Steel drums;
X. Metal pipes; and
Y. Prefabricated architectural components when the coating is applied in a surface coating unit.

2. Emission limits. No owner or operator of a surface coating unit subject to this subsection may cause, allow, or permit the discharge into the ambient air of any VOCs in excess of the following, as delivered to the coating applicator(s):

| Metal Parts and Products Coatings | | |
|---|---|---|
| | Emission Limit pounds of VOC per gallon of coating (minus water and exempt compounds) | |
| Coating Category | Air-Dried Coating | Baked Coating |
| General | | |
| One-Component Coating | 2.8 | 2.3 |
| Multi-Component Coating | 2.8 | 2.3 |
| Camouflage Coating | 3.5 | 3.5 |
| Clear Coat | 4.3 | 4.3 |
| Electric-Insulating Varnish | 3.5 | 3.5 |
| Etching Filler | 3.5 | 3.5 |
| Extreme High-Gloss Coating | 3.5 | 3.0 |
| Extreme-Performance Coating | 3.5 | 3.0 |
| Heat-Resistant Coating | 3.5 | 3.0 |
| High-Performance Architectural Coating | 6.2 | 6.2 |
| High-Temperature Coating | 3.5 | 3.5 |
| Metallic Coating | 3.5 | 3.5 |
| Military Specification Coating | 2.8 | 2.3 |
| Mold Seal Coating | 3.5 | 3.5 |
| Pan-Backing Coating | 3.5 | 3.5 |
| Prefabricated Architectural Component Coating | 3.5 | 2.3 |
| Pretreatment Coatings | 3.5 | 3.5 |
| Repair and Touch-Up Coatings | 3.5 | 3.0 |
| Silicone-Release Coating | 3.5 | 3.5 |
| Solar-Absorbent Coating | 3.5 | 3.0 |
| Vacuum-Metalizing Coating | 3.5 | 3.5 |
| Drum, New, Exterior | 2.8 | 2.8 |
| Drum, New, Interior | 3.5 | 3.5 |
| Drum, Reconditioned, Exterior | 3.5 | 3.5 |
| Drum, Reconditioned, Interior | 4.2 | 4.2 |

| Plastic and Rubber Parts and Products Coatings | |
|---|---|
| Coating Category | Emission Limit pounds of VOC per gallon of coating (minus water and exempt compounds) |
| Automotive/Transportation | |
| High-Bake Coating Interior and Exterior Parts | |
| Flexible Primer | 4.5 |
| Non-Flexible Primer | 3.5 |
| Basecoat | 4.3 |
| Clear Coat | 4.0 |
| Non-Basecoat/Clear Coat | 4.3 |
| Low-Bake Coating /Air-Dried Coating, Exterior Parts | |
| Primer | 4.8 |
| Basecoat | 5.0 |
| Clear Coat | 4.5 |
| Non-Basecoat/Clear Coat | 5.0 |
| Low-Bake Coating/Air-Dried Coating, Interior Parts | 5.0 |
| Touch-Up and Repair Coatings | 5.2 |
| Business Machine | |
| Primer | 2.9 |
| Topcoat | 2.9 |
| Texture Coat | 2.9 |
| Fog Coat | 2.2 |
| Touch-Up and Repair Coatings | 2.9 |
| Plastic and Rubber, All Other | |
| General | |
| One-Component Coating | 2.3 |
| Multi-Component Coating | 3.5 |
| Electric Dissipating Coating and Shock-Free Coating | 6.7 |
| Extreme-Performance Coating | 3.5 |
| Metallic Coating | 3.5 |
| Military Specification Coating | |
| One-Component Coating | 2.8 |
| Two-Component Coating | 3.5 |
| Mold Seal Coating | 6.3 |
| Multi-Colored Coating | 5.7 |
| Optical Coating | 6.7 |
| Polyurethane Shoe Sole | 6.7 |
| Vacuum-Metalizing Coating | 6.7 |
| Decorative Coating of Foam Products, Dip-Coated, Air-Dried | 5.7 |

| Pleasure Craft Coatings | |
|---|---|
| Coating Category | Emission Limit pounds of VOC per gallon of coating (minus water and exempt compounds) |
| Extreme High-Gloss Coating | 5.0 |
| High-Gloss Coating | 3.5 |
| Pretreatment Wash Primer | 6.5 |
| Finish Primer/Surfacer | 5.0 |
| High-Build Primer/Surfacer | 2.8 |
| Aluminum Substrate Antifoulant Coating | 4.7 |
| Other Substrate Antifoulant Coating | 3.3 |
| Antifoulant Sealer/Tie Coating | 3.5 |
| All Other Coatings | 3.5 |

| Motor Vehicle Coatings | |
|---|---|
| Coating Category | Emission Limit pounds of VOC per gallon of coating (minus water and exempt compounds) |
| Cavity Wax | 5.4 |
| Sealer | 5.4 |
| Deadener | 5.4 |
| Gasket/Gasket- Sealing Material | 1.7 |
| Underbody Coating | 5.4 |
| Trunk Interior Coating | 5.4 |
| Bedliner | 1.7 |
| Lubricating Wax/Compound | 5.8 |

3. Method and determination of compliance. The emission limits in paragraph (3)(J)2. of this rule shall be achieved through one (1) of the following:

A. VOC content of coatings. Determine the daily volume-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds), per subparagraph (5)(C)3.A. of this rule. The surface coating unit is in compliance if this value is less than or equal to the emission limit in paragraph (3)(J)2. of this rule;

B. Combination of VOC content of coatings and add-on controls. Calculate the required control system efficiency per paragraph (5)(C)4. of this rule. The surface coating unit is in compliance if the actual overall control system efficiency is greater than or equal to the required control system efficiency; or

C. Control system. If a control system is used to achieve compliance, the overall control system efficiency must be ninety percent (90%) or greater.

4. Application equipment. One (1) or a combination of the following equipment shall be used for coating application, unless achieving compliance by using an add-on control device per subparagraph (3)(J)3.C. of this rule:

A. Electrostatic spray application;
B. HVLP spray equipment;
C. Flow coating;
D. Roller coating;
E. Dip coating, including electrodeposition;
F. Airless spray;
G. Air-assisted airless spray;
H. Ink jet technology; and
I. Other coating application method capable of achieving a

transfer efficiency equivalent or better than achieved by HVLP spraying.

5. Work practices. Work practices shall be used to minimize VOC emissions from solvent storage, mixing operations, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices include, but are not limited to, the following:

A. Store all VOC-containing coatings, thinners, and cleaning materials in closed containers;

B. Ensure that mixing and storage containers used for VOC-containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials;

C. Minimize spills of VOC-containing coatings, thinners, and cleaning materials;

D. Clean up spills immediately;

E. Convey any coatings, thinners, and cleaning materials in closed containers or pipes from one (1) location to another; and

F. Minimize VOC emissions from the cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

6. For metal parts coatings, the VOC limits in paragraph (3)(J)2. of this rule do not apply to the following types of coatings and coating operations:

A. Stencil coatings;

B. Safety-indicating coatings;

C. Solid film lubricants;

D. Electric-insulating and thermal-conducting coatings;

E. Magnetic data storage disk coatings; and

F. Plastic extruded onto metal parts to form a coating.

7. For metal parts coatings, the application equipment requirements in paragraph (3)(J)4. of this rule do not apply to the following types of coatings and coating operations:

A. Touch-up coatings;

B. Repair coatings; and

C. Textured coatings.

8. For plastic parts coatings, the VOC limits in paragraph (3)(J)2. of this rule do not apply to the following types of coatings and coating operations:

A. Touch-up and repair coatings;

B. Stencil coatings applied on clear or transparent substrates;

C. Clear or translucent coatings;

D. Coatings applied at a paint manufacturing facility while conducting performance tests on the coatings;

E. Any individual coating category used in volumes less than fifty (50) gallons in any one (1) year, if substitute compliant coatings are not available, provided that the total usage of all such coatings does not exceed two hundred (200) gallons per year, per facility;

F. Reflective coating applied to highway cones;

G. Mask coatings that are less than one-half (0.5) millimeter thick (dried) and the area coated is less than twenty-five (25) square inches;

H. Electromagnetic interference and radio frequency interference (EMI/RFI) shielding coatings; and

I. Heparin-benzalkonium chloride (HBAC)-containing coatings applied to medical devices, provided that the total usage of all such coatings does not exceed one hundred (100) gallons per year, per facility.

9. For plastic parts coatings, the application equipment requirements in paragraph (3)(J)4. of this rule do not apply to airbrush operations using five (5) gallons or less per year of coating.

10. For automobile, transportation, or business machine plastic parts coatings, the VOC limits in paragraph (3)(J)2. of this rule do not apply to the following types of coatings and coating operations:

A. Texture coatings;

B. Vacuum metalizing coatings;

C. Gloss reducers;

D. Texture adhesion primers;

E. Electrostatic preparation coatings;

F. Resist coatings; and

G. Stencil coatings.

11. For pleasure craft surface coating operations, the application equipment requirements in paragraph (3)(J)4. of this rule do not apply to extreme high-gloss coatings.

12. The limits for military specification coatings in subparagraph (3)(J)2.B. of this rule do not apply to coatings that meet the following criteria:

A. The coating is only applied to military equipment used for national defense;

B. The coating performance is critical to the successful operation of the military equipment; and

C. The coating is mandated in a specification or contract and a substitution of coatings that meet the VOC limits in subparagraph (3)(J)2.B. of this rule is prohibited.

13. The limits for pleasure craft coatings in subparagraph (3)(J)2.B. do not apply to pleasure craft touch-up and repair coatings supplied by the manufacturer or supplier in containers with a net volume of one (1) liter or less.

(5) Test Methods.

(C) Other Test Methods and Calculations.

1. Calculating the VOC content of the coating.

A. The VOC content of the coating as-applied, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds), shall be determined using Equation (1) as follows:

$$B = \frac{D_C \times W_O}{1 - \left(\frac{D_C \times W_W}{8.33}\right) - \left(\sum_{j=1}^{m} \frac{D_C \times W_{E_j}}{D_{E_j}}\right)} \quad (1)$$

Where:

B = VOC content of the coating as-applied, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds);

$D_C$ = density of coating as-applied, expressed as pounds per gallon;

$W_O$ = weight fraction of regulated VOC in the coating, as-applied. This value does not include the weight fraction of water or exempt compounds;

$W_W$ = weight fraction of water in the coating, as-applied;

$W_E$ = weight fraction of exempt compounds in the coating, as-applied;

$D_E$ = density of each exempt compound, expressed as pounds per gallon;

m = number of exempt compounds in the coating; and

8.33 = density of water, expressed as pounds per gallon.

B. The VOC content of the coating as-applied, expressed as pounds of VOC per gallon of coating solids, shall be determined using Equation (2) as follows:

$$B_S = \frac{D_C \times W_O}{V_S} \quad (2)$$

Where:

$B_S$ = VOC content of the coating as-applied, expressed as pounds of VOC per gallon of coating solids;

$D_C$ = density of coating as-applied, expressed as pounds per gallon;

$W_O$ = weight fraction of regulated VOC in the coating, as-applied. This value does not include the weight fraction of water or exempt compounds; and

$V_S$ = volume fraction of solids in the coating, as-applied.

C. The VOC content of the coating as-applied, expressed as pounds of VOC per pound of coating solids, shall be determined using Equation (3) as follows:

$$B_{MWS} = \frac{D_C \times W_O}{D_C \times W_S} \qquad (3)$$

Where:
$B_{MWS}$ = VOC content of the coating as-applied, expressed as pounds of VOC per pound of coating solids;
$D_C$ = density of coating as-applied, expressed as pounds per gallon;
$W_O$ = weight fraction of regulated VOC in the coating, as-applied. This value does not include the weight fraction of water or exempt compounds; and
$W_S$ = weight fraction of solids in the coating, as-applied.

2. Equivalent emission limits. Emission limits expressed as pounds of VOC per gallon of coating (minus water and exempt compounds) shall be converted to an equivalent emission limit expressed as pounds of VOC per gallon of coating solids using Equation (4) as follows:

$$L_S = \frac{L}{\left(1 - \frac{L}{7.36}\right)} \qquad (4)$$

Where:
$L_S$ = emission limit expressed as pounds of VOC per gallon of coating solids;
L = emission limit expressed as pounds of VOC per gallon of coating (minus water and exempt compounds); and
7.36 = average density of solvents, in pounds per gallon, used to originally establish the emission limits.

3. Weighted averaging.

A. The daily volume-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds), shall be calculated using Equation (5) as follows:

$$DAVG_{VW} = \frac{\sum_{i=1}^{n} (A_i \times B_i)}{C} \qquad (5)$$

Where:
$DAVG_{VW}$ = daily volume-weighted average VOC content, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds);
A = daily gallons of each coating used (minus water and exempt compounds) in a surface coating unit;
B = VOC content of the coating as-applied, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds). This is determined by subparagraph (5)(C)1.A. of this rule;
C = total daily gallons of coatings used (minus water and exempt compounds) in a surface coating unit; and
n = number of coatings used in a surface coating unit.

B. The daily volume-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of VOC per gallon of coating solids, shall be calculated using Equation (6) as follows:

$$DAVG_{VWS} = \frac{\sum_{i=1}^{n} (A_{S_i} \times B_{S_i})}{C_S} \qquad (6)$$

Where:
$DAVG_{VWS}$ = daily volume-weighted average VOC content, expressed as pounds of VOC per gallon of coating solids;
$A_S$ = daily gallons of coating solids for each coating used in a surface coating unit;
$B_S$ = VOC content of the coating as-applied, expressed as pounds of VOC per gallon of coating solids. This is determined by subparagraph (5)(C)1.B. of this rule;
$C_S$ = total daily gallons of coatings solids used in a surface coating unit; and
n = number of coatings used in a surface coating unit.

C. The daily mass-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of VOC per pound of coating solids, shall be calculated using Equation (7) as follows:

$$DAVG_{MWS} = \frac{\sum_{i=1}^{n} (A_{MWS_i} \times B_{MWS_i})}{C_{MWS}} \qquad (7)$$

Where:
$DAVG_{MWS}$ = daily mass-weighted average VOC content, expressed as pounds of VOC per pound of coating solids;
$A_{MWS}$ = daily pounds of coating solids for each coating used in a surface coating unit;
$B_{MWS}$ = VOC content of the coating as-applied, expressed as pounds of VOC per pound of coating solids. This is determined by subparagraph (5)(C)1.C. of this rule;
$C_{MWS}$ = total daily pounds of coatings solids used in a surface coating unit; and
n = number of coatings used in a surface coating unit.

D. The monthly volume-weighted average VOC emission rate of an electrodeposition primer, expressed as pounds of VOC per gallon of coating solids deposited, shall be determined using Equation (8) as follows:

$$MAVG_{VWS} = \left[ \frac{\sum_{i=1}^{n} L_{C_i} D_{C_i} W_{O_i} + \sum_{j=1}^{m} L_{D_j} D_{D_j}}{\sum_{i=1}^{n} L_{C_i} V_{S_i}} \right] \times [1 - E/100] \qquad (8)$$

Where:
$MAVG_{VWS}$ = monthly volume-weighted average VOC emission rate of the electrodeposition primer, expressed as pounds of VOC per gallon of coating solids deposited;
$L_C$ = monthly volume of each coating consumed, as-received, expressed as gallons;
$D_C$ = density of each coating as-received, expressed as pounds per gallon;
$W_O$ = weight fraction of VOC in each coating, as-received;
$L_D$ = monthly volume of each type of VOC dilution solvent added to the coating, expressed as gallons;
$D_D$ = density of each type of VOC dilution solvent added to the coating, expressed as pounds per gallon;
$V_S$ = volume fraction of solids in each coating as-received, expressed as gallons of solids per gallon of coating;
E = overall control system efficiency;
n = number of coatings used; and
m = number of VOC dilution solvents used.

E. The monthly volume-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds), shall be calculated using Equation (9) as follows:

$$MAVG_{VW} = \frac{\sum_{i=1}^{n} (A_i \times B_i)}{C} \qquad (9)$$

Where:

$MAVG_{VW}$ = monthly volume-weighted average VOC content as-applied, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds);
A = monthly gallons of each coating used (minus water and exempt compounds) in a surface coating unit;
B = VOC content of the coating as-applied, expressed as pounds of VOC per gallon of coating (minus water and exempt compounds), as delivered to the coating applicator. This is determined by subparagraph (5)(C)1.A. of this rule;
C = total monthly gallons of coatings used (minus water and exempt compounds) in a surface coating unit; and
n = number of coatings used in a surface coating unit.

4. The required control system efficiency shall be determined using Equation (10) as follows:

$$R = \left[ \frac{(DAVG_{VWS} - L_S)}{DAVG_{VWS}} \right] \times 100 \qquad (10)$$

Where:
R = required control system efficiency;
$DAVG_{VWS}$ = daily volume-weighted average VOC content of all coatings used in a surface coating unit, expressed as pounds of VOC per gallon of coating solids, per subparagraph (5)(C)3.B. of this rule; and
$L_S$ = emission limits expressed as pounds of VOC per gallon of coating solids, per paragraph (5)(C)2. of this rule.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 10—Air Conservation Commission
## Chapter 6—Air Quality Standards, Definitions, Sampling and Reference Methods and Air Pollution Control Regulations for the Entire State of Missouri

### ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo 2016, the commission amends a rule as follows:

10 CSR 10-6.045 is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 1, 2018 (43 MoReg 2073-2076). Those sections with changes are reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received seventeen (17) comments from five (5) sources: the St. Louis County Department of Public Health Air Pollution Control Program; the U.S. Environmental Protection Agency (EPA); the Regulatory Environmental Group for Missouri (REGFORM); Newman, Comley, and Ruth P.C.; and the Missouri Farm Bureau.

COMMENT #1: The St. Louis County Department of Public Health commented that refuse is defined in the proposed rule but is not a term used in the proposed rule.
RESPONSE: The proposed rulemaking language did not include the term "refuse" or a definition for that term. No change was made to the rule text as a result of this comment.

COMMENT #2: The St. Louis County Department of Public Health commented on whether the date range described in section (3)(E)5. corresponds to the ozone monitoring season date range (April-October) listed in 40 CFR Part 58 Appendix D?
RESPONSE: The date range of April 15 to September 15 found in paragraph (3)(E)5. has been retained because this date range is found in current permits and comes from the current open burning rule language for the St. Louis metropolitan area. The St. Louis metropolitan area is the only ozone nonattainment area in the state. No change was made to the rule text as a result of this comment.

Due to similar concerns expressed in the following three (3) comments, one (1) response that addresses these concerns is at the end of these three (3) comments.

COMMENT #3; The St. Louis County Department of Public Health commented that section (3) of the proposed rulemaking states that "Open burning that causes or constitutes a public health hazard….is not allowed unless specified otherwise." The language appears to make the determination of a public health hazard subjective. We recommend additional language which would further define or clarify what a public health hazard is and what authority is able to determine whether a public health hazard exists or did exist from an open burning activity. e.g.; does a public health hazard exist if a single household is burning their own household waste and a neighbor has sensitivity to the odor or particulates of smoke causing the neighbor aggravation of asthma and/or an adverse respiratory response?

COMMENT #4: The St. Louis County Department of Public Health commented during public hearing that the use of the term "public health hazard" is too subjective and needs to be defined.
COMMENT #5: The REGFORM took no position on either the possible rescission or amendment of the "Open Burning" regulation. Under the general provision language of the amended rule, open burning is not allowed if it "causes or constitutes a public health hazard, a hazard to vehicular or air traffic, is composed of material listed in subsection (3)(A) of this rule, or violates any other rule or statute … . " REGFORM supports comments made during the September 27, MACC public hearing that the term "public health hazard" is overly broad, open to subjective interpretation, and could become more problematic than simply requiring a permit. We recommend either defining the term, "public health hazard" or modifying the proposed language in some other manner.
RESPONSE AND EXPLANATION OF CHANGE: The department added language to the rule in section (3) to further clarify public health hazard. It is to be as determined by local fire department, police department, health department, or other local authorities on a case-by-case basis.

COMMENT #6: The EPA commented that, as previously commented, where the department is introducing definitions not previously used in its rule (e.g. air curtain incinerator, vegetative waste, wood processing facility), the EPA recommends the department use already published definitions found in the CFR or the department's approved 111(d) state plans where applicable.

For example, the department is proposing to define air curtain incinerator at 10 CSR 10-6.045(2)(A), but has not previously defined this term in its 10 CSR 10-6.045 Open Burning regulation or its 10 CSR 10-6.020 Definitions and Common Reference Tables regulation. The EPA recommends that the department use a previously promulgated definition such as the definition for air curtain incinerator provided at 40 CFR Part 60, Subpart CCCC–Standards of Performance for Commercial and Industrial Solid Waste Incineration Units (CISWI) (40 CFR 60.2245), 40 CFR Part 60, Subpart DODD–Emissions Guidelines and Compliance and Times for CISWI (40 CFR 60.2810) or the state's lll(d) plan to implement the CISWI guidelines as approved at 40 CFR Part 62, Subpart AA, 40 CFR 62.6360.

The definition of air curtain in subsection (2)(A) is different than the definition in subsection (3)(F). Since the definition at subsection (3)(F) aligns with already promulgated definitions at 40 CFR 60.2245, 40 CFR 60.2810 and the state's approved CISWI 111(d)

plan, the EPA recommends that the department revise its proposed definition at subsection (2)(A) to match subsection (3)(F).
RESPONSE AND EXPLANATION OF CHANGE: The department is placing relevant definitions back in the rules, rather than maintaining the definitions in rule 10 CSR 10-6.020. As part of this process, the definitions changed from those currently in 10 CSR 10-6.020 to clarify rule requirements. The definition of air curtain incinerator in subsection (2)(A) was amended as a result of this comment to more closely align with EPA's suggestion and the use of the term in subsection (3)(F).

COMMENT #7: The EPA commented that, as previously commented, the proposed rule text removes a reference to 40 CFR Part 60 Subpart CCCC which identifies that air curtain incinerators are CISWIs. The EPA continues to recommend that the department retain this reference, and add clarifying language that air curtain incinerators that meet the conditions of this rule are also required to meet the requirements of 40 CFR 60.2242 (Title V permit obligations), 60.2250 (emission limitations obligations), 60.2255 (opacity monitoring obligations), and 60.2260 (record keeping and reporting obligations).
RESPONSE: The open burning rule is not meant to tell sources that use an air curtain incinerator of their Title V permit obligations. The removal of the specific reference to 40 CFR part 60 Subpart CCCC, 60.2245–60.2260 does not impact rule requirements since the department placed similar language into the rule text. The language in paragraphs (3)(F)1. and (3)(F)2., subsection (3)(G), and section (4) establishes the requirements for air curtain incinerators that mirrors parts 60.2245–60.2260 of Subpart CCCC. No change was made to the rule text as a result of this comment.

COMMENT #8: The EPA commented that the following differences in the proposed text at paragraphs (3)(F)l., (3)(F)2., subsection (3)(G), and section (4) should be corrected if mirroring "parts" of 40 CFR 60.2245 through 60.2260 of Subpart CCCC in the Open Burning rule is the department's intent (as described in the Response to Comments document).

a. The word "and" is missing between paragraph 3(G)l. and paragraph (3)(G)2. (40 CFR 60.2250)

b. The requirement for opacity to be determined by using the average of three 1-hour blocks is missing from paragraph (3)(G)3. (40 CFR 60.2250)

c. The words "60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility initial test" as specified in 60.8 is missing from section (5). (40 CFR 60.2255)
RESPONSE AND EXPLANATION OF CHANGE: The department amended paragraphs (3)(G)1. and (3)(G)2., subsection (4)(D), and section (5) as a result of this comment to align with 40 CFR 60.2245 through 60.2260.

COMMENT #9: The EPA commented that subsection (4)(D) requires the submission of the initial and annual opacity test results no later than 60 days following the test but it does not indicate where or to whom the submission should be made. The EPA encourages the department to include clear and specific submission requirements.
RESPONSE: Subsection (4)(C) requires all records be made available for submittal to the staff director or for an inspector's onsite review. No change was made to the rule text as a result of this comment.

COMMENT #10: The EPA commented that, as previously commented, the EPA encourages the department to assess the need for adding a reference to 10 CSR 10-6.030(22) in subsection (5) of this rule because this subsection already specifies which test method to utilize (Method 9) and where it can be found (40 CFR Part 60, Appendix A-4). The proposed rule text language for the potential revisions to 10 CSR 10-6.030, adding section (22), just incorporates 40 CFR Part 60 by reference. It may be unnecessary to divert the public to another state regulation, which then incorporates a federal regulation by reference and provides no additional clarity, when the requirement is already specified section (5) of this rule.
RESPONSE: The department is currently in the process of amending rule 10 CSR 10-6.030 Sampling Methods for Air Pollution Sources and plans to submit this rule for inclusion into the SIP before, or concurrently with, the submittal to EPA of amendments to 10 CSR 10-2.205. No changes were made to the rule text as a result of this comment.

COMMENT #11: The Missouri Farm Bureau commented that feed and seed bags should remain exempt from the open burning restrictions as found in the current rule. The proposed amendment does not appear to retain that exemption.
RESPONSE AND EXPLANATION OF CHANGE: Our intent is not to remove the exemption to open burn feed and seed bags related to agricultural activities. The department added a new section (3)(I) as a result of this comment to clarify that the open burning associated with agricultural or forestry operations is allowed.

COMMENT #12: Newman, Comley, and Ruth P.C. commented during the public hearing that old buildings and sheds should be exempt from the open burning restrictions.
RESPONSE: Subsection (3)(D) and (3)(E) allows for the open burning of untreated wood waste from demolition waste as long as certain conditions are met. No change was made to the rule text as a result of this comment.

Due to similar concerns expressed in the following two (2) comments, one (1) response that addresses these concerns is at the end of these two (2) comments.

COMMENT #13: Newman, Comley, and Ruth P.C. made a general comment that removing the word "shall" from a rule requirement could be interpreted that the requirement is no longer necessary. Regulations must be clear and concise as to the intent of the regulation. The department should review all instances of deleting the word "shall" and consider retaining it.
COMMENT #14: The St. Louis County Department of Public Health commented in support of Comment #13 because regulation requirements must be clear for enforcement purposes.
RESPONSE: The department appreciates these concerns over removal of the word "shall" in rule text. All 10 CSR 10 rules were reviewed in compliance with Executive Order 17-03 with the purpose of making rule requirements clear. Staff reviewed the executive order rulemakings and determined that, in certain instances, the removal of the word "shall" may be interpreted to suggest that a previously mandatory obligation had become discretionary. For this rulemaking, staff re-reviewed the use of the word "shall" and, since removal of the word "shall" did not change the regulatory requirement, no changes were made to the rule text as a result of these comments.

Due to similar concerns expressed in the following two (2) comments, one (1) response that addresses these concerns is at the end of these two (2) comments.

COMMENT #15: The St. Louis County Department of Public Health commented that the proposed rulemaking allows open burning of household waste on or from properties with four (4) or fewer residential units in the metropolitan and suburban areas of St. Joseph, Kansas City, Springfield - Greene County, and St. Louis. The current open burning rule does not allow open burning of household waste in these areas. The allowance can be considered a type of backsliding. Smoke and odors from open burning events does impact entire neighborhoods and communities in areas with small lot sizes ($<0.25$ acres) where homes are often less than ten (10) feet from one another. There is evidence to support the fact that children and elderly residents (in these

densely populated areas) are especially susceptible to negative respiratory responses including asthma due to smoke and odors from single open burning events. For protection of physical property and purity of air resources as stated in State Statute 643.030, St. Louis County Department of Public Health proposes that open burning of household waste shall not be allowed in metropolitan areas of the State. Please include an open burning restriction for open burning of household waste in metropolitan areas of the state, defined by county or city boundaries.

COMMENT #16: The St. Louis County Department of Public Health commented that State Statute Chapter 643.030 is a statement on the intent of the MO Air Conservation Law and the Air Conservation Commission's objective. It states that "it is the intent and purpose of this chapter to maintain purity of the air resources of the state to protect the health, general welfare and physical property of the people" and that "the commission shall seek the accomplishment of this objective through the prevention, abatement, and control of air pollution by all practical and economically feasible methods"

The St. Louis County Department of Public Health believes that the allowance of open burning of household waste in metropolitan areas of the State is a direct opposition of Chapter 643.030 by the Commission. Open burning of household waste in metropolitan areas will not maintain purity of air resources in these areas and does not protect the health, welfare, and physical property of communities where homes are often less than ten (10) feet from one another. Children and elderly residents in these densely populated areas are especially susceptible to negative respiratory responses including asthma caused by smoke and odors from single open burning events. It is practical and necessary for the commission to respect their objective and comply with Missouri State Statute Chapter 643.030 by not allowing open burning of household waste within metropolitan areas of the State.

As is the intention of State Statute 643.030, maintaining purity of air resources is best addressed through the MO Air Conservation Commission and should not be done piecemeal by local county and municipal governments across the State.

RESPONSE: Protecting the health, general welfare, and physical property of the people by all practical and economically feasible means is a goal of the department. However, regulating individual households for open burning of household waste as suggested in the comments is no longer practical for the department. Missouri allows open burning of household refuse from four (4) dwelling units or less provided it originates and is burned on the same premises throughout the rest of the state under current rule. Local ordinances in major cities, such as those listed in the comment and others, can further limit or restrict open burning beyond state regulations. The department's limited staffing resources should be focused on permitted sources and sources that are subject to federal regulations for which the state has enforcement delegation and attaining and maintaining compliance with the National Ambient Air Quality Standards. No change was made to the rule text as a result of this comment.

COMMENT #17: The St. Louis County Department of Public Health commented that the definition of household waste in the proposed rulemaking includes "discarded materials." We believe this could be interpreted to include items which should not be intended as household waste. An expanded definition of household waste or a definition of "durable goods" would eliminate issues with open interpretations of household waste. Please include a definition of "durable goods".

RESPONSE: The term "durable goods" is a commonly used term found in the dictionary and the term is not unique to air pollution. The dictionary definition is adequate for use in this rule. No change was made to the rule text as a result of this comment.

**10 CSR 10-6.045 Open Burning Requirements**

(2) Definitions.

(A) Air curtain incinerator—A device that operates by forcefully projecting a curtain of air across an open chamber or open pit in which combustion occurs.

(B) Household waste—Garbage, trash, and other discarded materials that are generated from residential activities in a household.

(C) Open burning—The burning of materials where the products of combustion are emitted into the open air without passing through a chimney or stack.

(D) Salvage Operation—Any business, trade, industry, or other activity conducted in whole or in part for the purpose of salvaging or reclaiming any product or material.

(E) Trade waste—Waste materials from any business, institution, or industry.

(F) Untreated wood—Wood that has not been chemically preserved, painted, stained, or composited. Untreated wood does not include plywood, particleboard, chipboard, and wood with other than minimal quantities of paint, coating, or finish.

(G) Vegetative waste—Tree trunks, tree limbs, tree trimmings, vegetation, and yard waste.

(H) Wood processing facility—A facility that uses logs or dimensional lumber to be cut and used in the manufacturing process.

(I) Definitions of certain terms specified in this rule, other than those defined in this rule section, may be found in 10 CSR 10-6.020.

(3) General Provisions. Open burning that causes or constitutes a public health hazard, a hazard to vehicular or air traffic, is composed of material listed in subsection (3)(A) of this rule, or violates any other rule or statute, is not allowed unless specified otherwise. A public health hazard is to be as determined by the local fire department, police department, health department, or other local authorities on a case-by-case basis. The staff director reserves the right to prohibit or restrict open burning where burning is considered detrimental to air quality standards.

(G) Air curtain incinerators must meet the following emission limitations:

1. Maintain opacity to less than or equal to ten percent (10%) opacity (as determined by the average of three (3) one (1)-hour blocks consisting of ten (10) six (6)-minute average opacity values), except as described in paragraph (3)(G)2. of this rule; and

2. Maintain opacity to less than or equal to thirty five percent (35%) opacity (as determined by the average of three (3) one (1)-hour blocks consisting of ten (10) six (6)-minute average opacity values) during the startup period that is within the first thirty (30) minutes of operation.

(I) The open burning of material associated with agricultural or forestry operations related to the growing or harvesting of crops is allowed with the following exception. In an ozone non-attainment area, if open burning for pest or weed control or crop production on existing cropland between April 15 and September 15, the person must notify the staff director in writing at least forty-eight (48) hours prior to commencement of burning. The department reserves the right to delay the burning on days when the ambient ozone level is forecasted to be high.

(4) Reporting and Record Keeping. Owners and operators of Air Curtain Incinerators must—

(D) Submit the results of the initial opacity test required in section (5) of this rule no later than sixty (60) days following the initial test. Owners and operators must submit the results of the annual opacity test required in section (5) of this rule within sixty (60) days of conducting the test. Submit annual opacity test results within twelve (12) months following the previous report. Copies of the initial and annual reports are to remain onsite for a period of five (5) years. The opacity testing must consist of a minimum of one (1) hour of opacity values, consisting of ten (10) six (6)-minute average opacity values. Paper and electronic submittals are acceptable.

(5) Test Methods. Visible emissions from Air Curtain Incinerators

shall be evaluated within sixty (60) days after the air curtain incinerator reaches the charge rate at which it will operate, but no later than one hundred eighty (180) days after its initial startup, and annually thereafter using Method 9 of Appendix A-4 to 40 CFR 60 as specified in 10 CSR 10-6.030(22).

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 10—Air Conservation Commission
## Chapter 6—Air Quality Standards, Definitions, Sampling and Reference Methods and Air Pollution Control Regulations for the Entire State of Missouri

### ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo 2016, the commission amends a rule as follows:

10 CSR 10-6.060 is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 1, 2018 (43 MoReg 2076-2101). Those sections with changes are reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received thirty-seven (37) comments from nine (9) sources: Newman, Comley, and Ruth P.C.; the St. Louis County Department of Public Health; department staff; U.S. Environmental Protection Agency (EPA); The Boeing Company; Regulatory Environmental Group for Missouri (REGFORM); 3M; POET, LLC (POET); and the Missouri Limestone Producers Association (MLPA).

Due to similar concerns expressed in the following two (2) comments, one (1) response addressing these concerns is at the end of these comments.

COMMENT #1: Newman, Comley, and Ruth P.C. made a comment that removing the word "shall" from a rule requirement could be interpreted that the requirement is no longer necessary. Regulations must be clear and concise as to the intent of the regulation. The department should review all instances of deleting the word "shall" and consider retaining the word.

COMMENT #2: The St. Louis County Department of Public Health commented in support of Comment #1 because regulation requirements must be clear for enforcement purposes.

RESPONSE: The department appreciates these concerns over the removal of the word "shall" from rule text. All 10 CSR 10 rules were reviewed in compliance with Executive Order 17-03 with the purpose of making rule requirements clear. Staff reviewed the rulemakings and determined that, in certain instances, the removal of the word "shall" may be interpreted to suggest that a previously mandatory obligation had become discretionary. For this rulemaking, staff re-reviewed the use of the word "shall" and, since removal of the word "shall" did not change the regulatory requirement, no changes were made to the rule text as a result of these comments.

COMMENT #3: The St. Louis County Department of Public Health supports the proposed rule revisions for 10 CSR 10-6.060.
RESPONSE: The department appreciates the support for this rule amendment. No changes were made to the rule text as a result of this comment.

Due to similar concerns expressed in the following three (3) comments, one (1) response addressing these concerns is at the end of the comments.

COMMENT #4: Department staff commented that the following typographical errors in the proposed rule text need to be corrected:

- Subsection (2)(L) – Add serial comma after "project"
- Subsection (2)(R) – Change "Action Levels" to lower case
- Part (5)(F)6.B.(VI) – Delete the period at end of sentence - there should be a semicolon only
- Subparagraph (6)(B)2.B. – Change "Programs" to "Program's"

COMMENT #5: Department staff commented that the following reference errors in the proposed rule text need to be corrected:

- Paragraph (5)(F)1. – Change "Environmental Protection Agency" to "U.S. Environmental Protection Agency"
- Paragraph (3)(H)1. – Change the reference from "paragraph (3)(C)10." To "subsection (3)(D)"
- Paragraph (3)(I)5. – Change the reference from "(5)(F)3. Table 1" to "(5)(F)5. Table 2"
- Paragraphs (3)(C)6., (3)(H)2., (3)(H)4., and (3)(H)6.; subparagraph (4)(D)1.B., and subsection (11)(I) –Change the reference to "subparagraph (3)(D)5.I." to "paragraph (3)(H)9."
- Subsections (4)(E) and (10)(D); and paragraph (5)(E)1. – Change the reference from "(3)(E)3. through 7." to "(3)(I)3. through 6."
- Paragraph (5)(F)1. – Change "40 CFR part 51" to "40 CFR 51"
- Subsections (7)(H), (8)(B), and (8)(D) – Change "U.S. Environmental Protection Agency" to "EPA"
- Paragraph (7)(B)1. – Change the reference from "(7)(A)2." to "(7)(A)3."

COMMENT #6: Department staff commented that the following clarifications need to be made:

- Subsection (2)(T) – Change "See permanent shutdown." to "See permanently shutdown." to match the defined term referred to at (2)(K)
- Paragraph (3)(D)2. – Change "installation" to "applicant."
- Subsection (3)(E) – Make minor clarification changes to improve readability so it reads as follows:

"Conditions that the permitting authority can require in permit. The permitting authority may impose conditions in a permit necessary to accomplish the purposes of this rule, any applicable requirements, or the Air Conservation Law, Chapter 643, RSMo. Less stringent conditions shall not take the place of any applicable requirements. Such conditions may include:"

- Paragraph (5)(F)2. – Change "Table 1." to "Table 1 in paragraph (5)(F)3. of this rule." to clarify exactly where Table 1 is located and to be consistent with other references to tables
- Paragraph (5)(F)4. – Add a second sentence to read "Table 2 is located in paragraph (5)(F)5. of this rule." to clarify exactly where Table 2 is located and to consistent with other references to tables
- Part (12)(A)2.B.(VI) – To clarify the requirement, change the rule text to read "The

permitting authority's draft permit and a statement of permitting's authority to approve, approve with conditions, or deny a permit;"

- Part (12)(A)2.B.(VII) – To clarify the requirement, change the rule text to read "A statement that the public may request a public hearing on the draft permit as stated in subparagraph (12)(A)2.E. of this rule and that the public hearing will be canceled if a request is not received;"
- Part (12)(A)2.B.(VIII) – To clarify the requirement, change the rule text to read "A statement that any interested person may submit relevant information materials and views on the draft permit as stated in subparagraph (12)(A)2.F. of this rule;"

• Part (12)(A)2.E.(I)–(V) – Clarify and rearrange for clarification so it reads as follows:

E. Public hearing.

(I) A public hearing shall be scheduled not less than thirty (30) nor more than forty (40) days from the date of publication of the notice.

(II) The public hearing will be held by the department if a public hearing request is received within twenty-eight (28) days of the publication of the notice, otherwise the public hearing will be canceled.

(III) At the public hearing, any interested person may submit any relevant information, materials, and views in support of or opposed to the permit.

(IV) The public hearing shall be held in the county in which all or a major part of the proposed project is to be located.

(V) The permitting authority may designate another person to conduct any hearing under this section.

RESPONSE AND EXPLANATION OF CHANGE: The department reviewed each item and is making the changes to the Order of Rulemaking as recommended.

COMMENT #7: The EPA commented that, as previously commented, EPA recommends the department move the information at subsection (l)(C), which establishes the need to obtain a permit, to subsection (l)(A) to provide additional clarity to the public. The use of "has" at subsection (l)(A) in the revised proposed rule text seems like a series of incomplete sentences. For example, (l)(A)5. states "Has construction of an incinerator." The EPA recommends "Before construction of an incinerator."

RESPONSE AND EXPLANATION OF CHANGE: The department clarified subsection (1)(A), but did not move the information from subsection (1)(C) into (1)(A). The department prefers for (1)(A) to list applicability requirements separately from the exemptions provided in subsection (1)(C). In regard to changing "has" to "before" as EPA recommends, the department is changing each "Has" in paragraphs (1)(A)1. through 5. to "Before."

COMMENT #8: The EPA commented that, as previously commented, EPA recommends the department clarify the new criteria in paragraph (l)(A)3. The Response to Comments document indicates this is addressed but it is still unclear. Paragraph (l)(A)3. uses the term "emission increase" but does not specify if the "emission increase" is based on actual emissions, allowable emissions, or potential to emit (PTE). It also does not specify a time frame (i.e., an annual emission increase can occur without having an hourly emission increase) to evaluate. Additionally, paragraph (l)(A)3. seems to require a permit for any increase, no matter how small an increase, if the existing installation has a PTE greater than the de minimis threshold levels.

RESPONSE AND EXPLANATION OF CHANGE: The department added a definition of "emission increase" to section (2) to clarify permit applicability. The applicability criteria compares the emission increase to de minimis threshold levels to determine if a permit is necessary. Since the de minimis thresholds are on a tons per year basis, the time frame for rule applicability is also annual. In regard to paragraph (1)(A)3., it is the department's intent that installations with a PTE greater than the de minimis threshold levels are subject to permitting, unless exempted under subsection (1)(C).

COMMENT #9: The EPA commented that the EPA previously suggested the department use "begin actual" instead of "commence" construction at paragraph (l)(D)l. because "begin actual construction" is defined in the definitions rule 10 CSR 10-6.020, which adopts the definitions in 40 CFR 52.21(b). The proposed rulemaking text uses "start of actual construction," which is not defined, making the rule unclear. The EPA recommends using "begin actual construction" or clearly defining "start of actual construction" in the rule.

RESPONSE AND EXPLANATION OF CHANGE: The department is changing "start of" to "begin" in (1)(D)1. as recommended.

COMMENT #10: The EPA suggests that the department revise the language at (l)(A)4. because new construction would not be a major modification the way it is defined. The EPA suggests the following language: "The modification is a major modification as defined in 40 CFR 52.21(b) or for nonattainment pollutants as defined in 40 CFR 51.165(a)(l)(v)."

RESPONSE AND EXPLANATION OF CHANGE: The department is changing (1)(A)4. as suggested.

COMMENT #11: The EPA commented that, as previously commented, EPA recommends the department retain the existing applicability language for portable equipment in 10 CSR 10-6.060(4)(A)l. because the new language appears to allow very large expansions at existing installations. Since the focus of the applicability appears to be based on the size of "construction or modification" (e.g. the project) and not the size of the installation, the 250 ton per year (tpy) applicability criteria for particulate matter (PM) could far exceed the de minimis thresholds if the existing source is already major for PM; potentially triggering a Prevention of Significant Deterioration (PSD) review. Since the air quality analysis in subsection (4)(E) is discretionary, very large sources of PM could potentially qualify for a portable permit in conflict with the requirement that any new construction or modification not cause or contribute to an air quality exceedance. If the department proceeds with the expanded 250 tpy PM applicability threshold for portable projects, the department will need to ensure that Missouri's State Implementation Plan submission meets the requirements of sections 110(1) and 193 of the Clean Air Act (CAA).

RESPONSE AND EXPLANATION OF CHANGE: The department does not plan to change the applicability or current portable installation permitting practices. The department understands that the proposed rule language could be interpreted to allow for a large increase of emissions. As a result of this comment, the department added a definition of "portable equipment installation" to section (2) to clarify that the 250 tpy threshold for PM and 100 tpy for other pollutants applies to the entire installation, including any new units or modified units.

COMMENT #12: The EPA commented that the department's Response to Comments on the Regulatory Impact Report and draft rule language indicated that the department has added the definitions of "screening model action levels" and "risk assessment levels" to the proposed rule (a suggestion previously made by the EPA) and that the department "plans to work with EPA to ensure SIP approval of the HAP modeling requirements." The EPA would like to clarify that the EPA's approval of the hazardous air pollutant (HAP) modeling requirements would be completed in accordance with CAA section 112(1) and is not a SIP action.

RESPONSE: The department understands that EPA will approve the HAP modeling requirements under section 112(l) of the CAA and it is not a SIP action. No changes were made to the rule text as a result of this comment.

COMMENT #13: The EPA commented that, as previously commented, the proposed text of 10 CSR 10-6.030(21) incorporates 40 CFR 51 by reference. The EPA does not recommend the state incorporate 40 CFR 51 in whole. If the federal definitions of 40 CFR 51 are absent or differ from those found in 10 CSR 10-6.020, Definitions and Common Reference Tables, or 10 CSR 10-6.060(2), for clarity, the EPA recommends that the full text of the definitions (e.g., major stationary source, major modification, net emissions increase and significant), are included at sections (2), (7), or even 10 CSR 10-6.020 rather than incorporate 40 CFR 51 in whole, by reference.

RESPONSE: The department understands it is not necessary to incorporate by reference 40 CFR 51 in its entirety for the purpose of four definitions applicable only to section (7). However, various parts of 40 CFR 51 are referenced by several different rules making it more efficient to place a single incorporation by reference into 10 CSR 10-6.030 to which all other references can point. 10 CSR 10-6.030 compiles numerous documents that are incorporated by reference for the purpose of all 10 CSR 10 rules. In addition, the definitions rule, 10 CSR 10-6.020, will undergo amendment removing all rule specific definitions leaving only general definitions, clarifying the applicability of all definitions. Since these four definitions apply only to section (7), the department prefers to point out the sixteen (16) specific definitions within section (7) itself so that users do not overlook these alternative definitions applicable only to section (7). No changes were made to the rule text as a result of this comment.

COMMENT #14: The EPA recommends that the department review the wording of the definition of "Chemical Process Plant" in paragraph (7)(A)l. to determine if including the word "not" meets with the department's intention of adding the definition to the section. That is, the EPA believes that the department meant to say that ethanol plants are included in the definition of "Chemical Process Plant" in section (7) of the rule as opposed to the proposed text that says that ethanol plants are not included in the definition. Additionally, for the purpose of implementing section (7) of the rule, the EPA recommends that the department clarify that the definition of "Chemical Process Plant" found at paragraph (7)(A)l. supersedes any definition of "Chemical Process Plant" in paragraph (7)(B)6., which refers to the incorporation by reference of 40 CFR 52.21 in subsection (8)(A).
RESPONSE AND EXPLANATION OF CHANGE: It is the department's intention that the definition of "Chemical process plant" include ethanol production facilities when an ethanol production facility is in a nonattainment area. This will ensure that the incorporation by reference of 40 CFR 52.21 (PSD program) in subsection (8)(A) is SIP approvable, regardless of the outcome of ongoing litigation. There are currently no sources affected. The department is deleting the words "do not" from (7)(A)1. to correct the definition for the purpose of nonattainment areas. As recommended, the department is adding clarifying language to the end of the sentence at (7)(A) ", including the reference to 40 CFR 52.21 in paragraph (7)(B)6."

COMMENT #15: The EPA commented that the proposed rule addresses EPA's previous recommendation that the department consider revising the proposed language at section (9), however the revised language appears to no longer specify who must obtain a permit. The EPA recommends additional clarification of the proposed rule text to make it clear to the public when a permit is needed at section (9). The EPA would like to clarify that this section would not be approved into the SIP. Instead the requirements of 40 CFR 63.42(a) would apply for the CAA 112(g) requirements.
RESPONSE: As EPA recommended in their comments on the department's Regulatory Impact and draft rulemaking language, the department incorporated by reference 40 CFR 63, subpart B to replace the section (9) provisions. In regard to the applicability of section (9), it can be derived that the section requires permits for major sources of HAPs. As stated by EPA in their comments, the requirements of 40 CFR 63.42(a) fulfills 112(g) requirements of the CAA and it is not a SIP action. No changes were made to the rule text as a result of this comment.

COMMENT #16: The EPA commented that, as previously commented, because "general" permits are more akin to permits-by-rule, and contain administrative requirements that apply directly to the department, EPA recommends moving section (6) to its own rule (i.e., promulgating 10 CSR 10-6.063, General Construction Permit for example) so that sources can quickly evaluate any benefit they might gain from the streamlined permitting requirements.
RESPONSE: The department will keep this suggestion under consideration as the streamlining of the general permits process develops. No changes were made to the rule text as a result of this comment.

COMMENT #17: The Boeing Company commented that at paragraph (7)(A)1., definitions for nonattainment area permits, Chemical Process Plants are defined to exclude ethanol production facilities that produce ethanol by natural fermentation. This definition is identical to federal nonattainment new source review (NNSR) and PSD provisions that require inclusion of fugitive emissions for named sources found in federal rules 51.165(a)(1)(iv)(C)(20) and 52.21(b)(1)(iii)(t). Since the Missouri proposal already incorporates these two federal sections by reference, it is not clear why a Chemical Process Plant definition that is identical to federal is singled out for repetition, and why it is only found in section (7). The EPA's comments on the department's Regulatory Impact Report and draft rule language notes that the exclusion of ethanol plants from the Chemical Process Plant category is in litigation. If the litigation results in ethanol plants being considered Chemical Process Plants, Missouri could either wait for the federal definition to be revised and adopt the subsequent code of federal regulations (CFR) by reference, or could initiate a rulemaking to define Chemical Process Plants to reflect the outcome of the litigation. If proposed (7)(A)1. is a placeholder for possible future revision, it makes sense, but begs the question why the placeholder would not be located so as to be applicable to both NNSR and PSD permitting.
RESPONSE: It is the department's intention that the definition of "Chemical process plant" include ethanol production facilities when an ethanol production facility is in a nonattainment area. This will ensure that the incorporation by reference of 40 CFR 52.21 (PSD program) in subsection (8)(A) is SIP approvable, regardless of the outcome of ongoing litigation. There are currently no sources affected. The department is deleting the words "do not" from (7)(A)1. to correct the definition for the purpose of nonattainment areas.

COMMENT #18: The REGFORM commented that they appreciate the department staff's Red Tape Reduction efforts and hard work.
RESPONSE: The department appreciates the support for their Red Tape Reduction efforts and acknowledgement of the staff's hard work. No changes were made to the rule text as a result of this comment.

COMMENT #19: The REGFORM supports the new Section (1)(B) Voluntary Permit. We recognize several situations in which it would be a valuable regulatory tool. We do, however, suggest additional consideration of the phrase, "practically enforceable limits." The word "practically" means "almost" or "virtually." If the goal is to design permit limits that facilitate enforcement staff determinations for compliance then simply say so in plain language. While the permit itself may be voluntary, once it is in place, the limit would be enforceable.
RESPONSE AND EXPLANATION OF CHANGE: The department intends for "practically" to mean a limit that has attached requirements such as monitoring, record keeping, etc. Without these requirements, any limit is unenforceable and therefore, impractical. Since this meaning of "practically" is not conveyed in the rule, the department will remove "practically" from (1)(B) and rely on "enforceable limits."

COMMENT #20: The REGFORM supports the new Section (5) Minor Permits. This new section is a valuable addition and consolidation of previous section.
RESPONSE: The department appreciates the support for consolidating section (5) de minimis permits with former section (6) permits for greater than de minimis (but less than major), into a single section for all minor permits. No changes were made to the rule text as a result of this comment.

COMMENT #21: The REGFORM commented that they reiterate their position that they are leery about the inclusion of any new air toxics language in this round of rule revisions without more discussion of the department's policy aims and process. The REGFORM understands that the department has been actively engaged on numerous fronts and that an air toxics work group would have required more attention and resources than easily available.

RESPONSE: The department added only one new provision at (5)(F)6.B. that the department will public notice any changes to risk assessment levels or screening model action levels. The purpose of the new public review is to increase public input and improve transparency. The department also added HAPs to the Significant Impact Levels in Table 1 to codify policy and ensure regulatory certainty. The department will continue to work with stakeholders through the Air Program Advisory Forum process to revise and streamline the permitting of hazardous air pollutants. No changes were made to the rule text as a result of this comment.

COMMENT #22: The REGFORM appreciates the department extending by additional thirty days, upon timely request, the opportunity to submit relevant information and materials in writing where there has been a change to risk assessment levels or screening model action levels of any hazardous air pollutant at part (5)(F)6.B.(II).
RESPONSE: Since this language was included in the proposed rule text, no changes were made to the rule text as a result of this comment.

COMMENT #23: The REGFORM commented that they again assert their position that the department's air toxics policy should exempt equipment for which there is a federal maximum achievable control technology (MACT) standard regardless of whether or not there has been a complete risk and technology review. At a minimum, there should be an exemption where there is an appropriate MACT standard and risk and technology review (RTR) and this should be included in rule language. The air toxics emissions from these pieces of equipment are already regulated and are unlikely to be the highest priority for further state-level regulation. This change would be straightforward and in accord with Missouri's Red Tape Reduction efforts. The REGFORM notes also that the EPA has an aggressive schedule to complete the RTRs over the next few years. (See: https://www3epa.gov/airtoxics/rrisk/rtrpg.html).

RESPONSE: The department considered codifying the current air toxics policy with regard to exempting equipment for which there is a federal MACT standard, but chose not to do so at this time due to complexity and lengthy rule language. The rationale for requiring HAP modeling for those HAPs that exceed their respective screening modeling action levels (SMALs), even when those installations have an applicable MACT, has to do with the development of MACTs themselves. Section 112 of the CAA establishes a two-step regulatory process to address emissions of HAPs from stationary sources. In the first step, technology-based standards are developed to reflect the maximum degree of emission reductions of HAPs achievable (after considering cost, energy requirements, and non-air quality health and environmental impacts). The second step in standard-setting focuses on reducing any remaining ''residual'' risk according to CAA section 112(f). The CAA section 112(f)(2) requires EPA to determine for source categories subject to certain CAA section 112(d) standards whether the emissions limitations provide an ample margin of safety to protect public health. In the first step, the MACT is developed on technology-based standards. It does not consider health standards in the first step. Health risks are not considered until the second step of the MACT rule development, the risk and technology review portion. Therefore, it is appropriate to require a health-based analysis in the form of modeling for comparison to our risk assessment levels (RALs) when they exceed the SMALs. The department will continue to work with stakeholders through the Air Program Advisory Forum process to revise and streamline the permitting of hazardous air pollutants. No changes were made to the rule text as a result of this comment.

COMMENT #24: The REGFORM supports the new section (6), General Construction Permits and believes it will be a valuable tool to help facilities and the department streamline regulatory requirements. The REGFORM looks forward to working with the department to expand opportunities for a General Construction Permit.
RESPONSE: The department appreciates the support for the new section (6), General Construction Permits. No changes were made to the rule text as a result of this comment.

COMMENT #25: The REGFORM identified an erroneous reference to (3)(C)10., a paragraph that does not exist.
RESPONSE AND EXPLANATION OF CHANGE: The department is changing the reference to "subsection (3)(D)" as described in the response to comment # 5.

COMMENT #26: The REGFORM identified an erroneous reference to (3)(D)5.I., a subparagraph that does not exist.
RESPONSE AND EXPLANATION OF CHANGE: The department is changing the reference to "paragraph (3)(H)9." as described in the response to comment # 5.

COMMENT #27: The REGFORM inquired as to if the applicability procedures in subsection (7)(B) for determining "significant emissions increase" and "significant net emissions increase" are consistent with EPA's 2018 issued guidance?
RESPONSE: The department did not make any substantive changes to the rule text in section (7). The department will take EPA's issued guidance into account when making permitting decisions. However, as a SIP-approved state, the department retains the ultimate discretion to make permitting decisions on a case-by-case basis. No changes were made to the rule text as a result of this comment.

COMMENT #28: 3M commented that they continue to have technical reservations with the department's air toxics policy and implementation. This incorporation of aspects of the department's air toxics policy into the rule does not itself resolve our technical reservations. During review of the draft of 10 CSR 10-6.060, 3M noticed that selected portions of the Missouri air toxics policy were included, most notably in section (5) De minimis Permits. However, 3M also noticed that the draft rule omitted several aspects of the air toxics policy, which they believe are significant and important. The interplay of the rule and the written guidance are unclear. 3M suggests that the department not incorporate any new aspects of the department's air toxics policy into rule. 3M suggests that the department collaborate with stakeholders to identify air toxics challenges and potential solutions for Missouri. 3M believes the result would be a set of well-understood goals and possible outcomes of an updated air toxics policy.
RESPONSE: The department added only one new provision at (5)(F)6.B. that the department will public notice any changes to risk assessment levels or screening model action levels. The purpose of the new public review is to increase public input and improve transparency. The department also added HAPs to the Significant Impact Levels in Table 1 to codify policy and ensure regulatory certainty. The department will continue to work with stakeholders through the Air Program Advisory Forum process to revise and streamline the permitting of hazardous air pollutants. No changes were made to the rule text as a result of this comment.

COMMENT #29: 3M commented that they recognize that the department's air toxics policy exempts equipment for which there is a federal MACT standard with a complete risk and technology review. 3M reiterates their position that the department should expand this exemption to cover all equipment with an applicable federal MACT standard. The air toxics emissions from these pieces of

equipment are already regulated and seem unlikely to be the highest priority for further state-level regulation. This change would be straightforward and in alignment with Missouri's Red Tape Reduction efforts.
RESPONSE: The department does not plan to change its current air toxics policy with regard to exempting equipment for which there is a federal MACT standard due to complexity and lengthy rule language. The department will continue to work with stakeholders through the Air Program Advisory Forum process to revise and streamline the permitting of hazardous air pollutants. No changes were made to the rule text as a result of this comment.

COMMENT #30: POET recommended that the department make explicit in the minor source construction permit regulations that for purposes of evaluating the need to model air impacts associated with a proposed project, a source may evaluate post-project PTE as compared to pre-project PTE, taking into account net emission changes. Additionally, POET recommends that the regulations clarify that "allowable emissions" are assumed to be the source's maximum emissions, to the extent the source is not subject to a permit condition or emission standard associated with those emissions. This approach, which is consistent with other states and incorporates consistently across the department's regulations the concept of PTE, will make clear what benchmark to use for emissions sources without enforceable permit conditions or other emission standards.
RESPONSE AND EXPLANATION OF CHANGE: The department added a definition of "emission increase" to section (2) to clarify permit applicability. Consistent with current practices, the department does not intend to allow netting for minor sources. The department is also clarifying language in subsection (5)(D).

COMMENT #31: POET comments that because the General Construction Permit Requirements, currently proposed at 10 CSR 10-6.060(6) are more akin to permits-by-rule, POET recommends the department codify them as a standalone section of the code.
RESPONSE: The department will keep this suggestion under consideration as the streamlining of the general permits process develops. No changes were made to the rule text as a result of this comment.

COMMENT #32: POET comments that there is a potential inconsistency between the minor source permit provision's applicability statement, 10 CSR 10-6.060(5)(A) and 10 CSR 10-6.060(6). Specifically, the minor source permit regulations apply if a source is "not subject to section … (6);" however, a source may also seek a variation from the General Construction Permit provisions and pursue a minor source permit pursuant to 10 CSR 10-6.060(6)(E)(2): "A source that seeks to vary from the general construction permit … shall apply for a permit pursuant to other sections of this rule." POET recommends that the department make clear in the applicability provision to the minor source permit provisions that, even if a general construction permit applies, the source may still apply for a minor source construction permit.
RESPONSE AND EXPLANATION OF CHANGE: Paragraph (6)(F)1. states, "if a source qualifies for a general construction permit, the owner or operator may request coverage under that permit… " The word "may" was purposely used to present the general permit provision under section (6) as a permitting option. There is no mechanism in the rule for the department to force any source to get a General Permit. Under subsection (6)(H), a source that has previously obtained coverage under the general permit provisions, may request to be excluded from coverage and obtain a minor source permit. However, to clarify that the general permit is optional, the department is adding language to (5)(A).

COMMENT #33: POET strongly supports the department's exclusion of ethanol biorefineries from the definition of "Chemical process plant," which is categorically a major stationary sources if it has the potential to emit 100 tpy of a regulated NSR pollutant.
RESPONSE AND EXPLANATION OF CHANGE: It is the department's intention that the definition of "Chemical process plant" include ethanol production facilities when an ethanol production facility is in a nonattainment area. This will ensure that the incorporation by reference of 40 CFR 52.21 (PSD program) in subsection (8)(A) is SIP approvable, regardless of the outcome of ongoing litigation. There are currently no sources affected. The department is deleting the words "do not" from (7)(A)1. to correct the definition for the purpose of nonattainment areas.

COMMENT #34: The MLPA appreciates the department's initiative to reduce regulatory burden on business activity in Missouri. MLPA notes that the leadership in programs that have the most authority over our industry (Air Pollution Control Program, Water Protection Program and Land Reclamation Program) have done an excellent job of seeking our comments when regulatory changes are necessary.
RESPONSE: The department appreciates the support for the department's Red Tape Reduction efforts. No changes were made to the rule text as a result of this comment.

COMMENT #35: The MLPA expressed concern that proposed changes to 10 CSR 10-6.060 may undo reasonable application review policy recently developed collaboratively between industry and department staff.
RESPONSE: The department did not intend to change the application review policy with this rule amendment. The department considers the changes in the rule amendment consistent with the recently adopted application review policy. No changes were made to the rule text as a result of this comment.

COMMENT #36: The MLPA requests that the department not make any additions or changes to 10 CSR 10-6.060 at this time and instead engage a stakeholder group to reconsider some of the substantive changes proposed during the state's Red Tape Reduction initiative.
RESPONSE: The department plans to work with the Air Program Advisory Forum on further changes to the rule. This rulemaking is not intended to result in substantive changes to processes and procedures currently used but it does benefit both the department and regulated entities primarily with the indirect benefit of timesaving. The reorganization and removal of outdated and duplicative language results in greatly improved clarification of requirements, procedures, time frames, and the responsibilities of both the applicant and the department. Adding permitting practices and procedures to the rule ensures regulatory certainty for applicants and consistency from the department. The draft rule language and Regulatory Impact Report were available for review and comment from April 6 through June 5, 2018. Comments and responses are available to provide clarity on proposed changes. The proposed rule language was on public notice and available for comment from August 1 through October 4, 2018. If MLPA has specific questions about changes or would like to meet to go through changes overall, the department would be happy to assist. The department plans a general informational session on this rulemaking and on others in the Red Tape Reduction initiative. No changes were made to the rule text as a result of this comment.

COMMENT #37: As an example, MLPA comments that it is unclear what, if any, modeling would be required under proposed subsections (3)(E), (4)(B), (4)(E), and (5)(E) for the de minimis limitation permits traditionally obtained by our industry. The proposed language found in paragraph (5)(E)2. includes a modeling threshold that has historically been applicable to air quality analysis for hazardous air pollutants only; that threshold now appears to be additionally applicable to criteria pollutants.
RESPONSE AND EXPLANATION OF CHANGE: The modeling required for any installation will be consistent with requirements under the current rule, regardless of the type of industry. Subsection (5)(E), which allows the director to require modeling in the prescribed conditions under paragraphs (5)(E)1. through 3. is part of

the current rule under paragraphs (5)(D)2. and (12)(J)2. These are not new requirements. The language under (5)(E)2. was obtained from subsection (12)(J) of the current rule. To clarify, the department is changing "air contaminants" in paragraph (5)(E)2. to "hazardous air pollutants".

**10 CSR 10-6.060 Construction Permits Required**

(1) Applicability.

(A) Construction Permit Required. The owner or operator of a new or existing installation throughout Missouri that meets any of the following provisions must obtain a permit:

1. Before construction of a new installation that results in a potential to emit greater than *de minimis* threshold levels;

2. Before new construction and/or modification that results in an emission increase greater than the de minimis threshold levels at an existing installation with potential to emit less than *de minimis* threshold levels;

3. Before new construction and/or modification that results in an emission increase at an existing installation whose potential to emit exceeds *de minimis* threshold levels or is less than de minimis threshold levels due to taking practically enforceable requirements in a permit;

4. The new construction and/or modification is a major modification as defined in 40 CFR 52.21(b) or for nonattainment pollutants as defined in 40 CFR 51.165(a)(1)(v); or

5. Before construction of an incinerator.

(B) Voluntary Permit. An installation in Missouri may obtain a permit under this rule in order to acquire voluntary, enforceable limits.

(D) Construction and Operation Prohibited Prior to Permitting. Owners or Operators shall obtain a permit from the permitting authority, except as allowed under subsection (1)(D) of this rule, prior to any of the following activities:

1. The beginning of actual construction or modification of any installation subject to this rule;

2. Operation after construction or modification; or

3. Operation of any emission unit that has been permanently shutdown.

(2) Definitions.

(F) Emission increase—The sum of post-project potential to emit minus the pre-project potential to emit for each new and modified emission unit. Decreases and netting are not to be included in the emission increase calculations.

(G) Good engineering practice (GEP) stack height—The greater of—

1. Sixty-five meters (65 m) measured from the ground-level elevation at the base of the stack;

2. For stacks on which construction commenced on or before January 12, 1979, and for which the owner or operator had obtained all applicable permits or approvals required under 40 CFR 51 and 52,

$$Hg = 2.5H$$

provided the owner or operator produces evidence that this equation was actually relied on in establishing an emission limitation; and for all other stacks,

$$Hg = H + 1.5L$$

Where:
Hg = GEP stack height, measured from the ground-level elevation at the base of the stack;
H = height of nearby structure(s) measured from the ground-level elevation at the base of the stack; and
L = lesser dimension, height, or projected width of the nearby structure(s). Provided that the director may require the use of a field study or fluid model to verify GEP stack height for the installation; or

3. The height demonstrated by a fluid model or field study approved by the director, which ensures that the emissions from a stack do not result in excessive concentrations of any air pollutant as a result of atmospheric downwash, wakes, or eddy effects created by the source itself, nearby structures, or nearby terrain features.

(H) Incinerator—Any article, machine, equipment, contrivance, structure, or part of a structure used to burn refuse or to process refuse material by burning other than by open burning.

(I) Modification—Any physical change to, or change in method of operation of, a source operation or attendant air pollution control equipment which would cause an increase in potential emissions of any air pollutant emitted by the source operation.

(J) Nonattainment pollutant—Each and every pollutant for which the location of the source is in an area designated to be in nonattainment of a National Ambient Air Quality Standard (NAAQS) under section 107(d)(1)(A)(i) of the Act. Any constituent or precursor of a nonattainment pollutant shall be a nonattainment pollutant, provided that the constituent or precursor pollutant may only be regulated under this rule as part of regulation of the corresponding NAAQS pollutant. Both volatile organic compounds (VOC) and nitrogen oxides (NOx) shall be nonattainment pollutants for a source located in an area designated nonattainment for ozone.

(K) Offset—A decrease in actual emissions from a source operation or installation that is greater than the amount of emissions anticipated from a modification or construction of a source operation or installation. The decrease must have substantially similar environmental and health effects on the impacted area. Any ratio of decrease to increase greater than one to one (1:1) constitutes offset. The exceptions to this are ozone nonattainment areas where volatile organic compound and oxides of nitrogen emissions will require an offset ratio of actual emission reduction to new emissions according to the following schedule:

1. marginal area = 1.1:1;
2. moderate area = 1.15:1;
3. serious area = 1.2:1;
4. severe area = 1.3:1; and
5. extreme area = 1.5:1.

(L) Permanently shutdown—The permanent cessation of operation of any air pollution control equipment or process equipment, not to be placed back into service or have a start-up.

(M) Pilot trials—A study, project, or experiment conducted in order to evaluate feasibility, time, cost, adverse events, and improve upon the design prior to performance on a larger scale.

(N) Pollutant—An air contaminant listed in subsection (3)(A) of 10 CSR 10-6.020.

(O) Portable equipment—Any equipment that is designed and maintained to be movable, primarily for use in noncontinuous operations. Portable equipment includes rock crushers, asphaltic concrete plants, and concrete batching plants.

(P) Portable equipment installation—An installation that consists solely of portable equipment and associated haul roads and storage piles. To be considered a portable equipment installation the following must apply:

1. The potential to emit of this installation is of less than two hundred fifty (250) tons per year of particulate matter and less than one hundred (100) tons per year of any other air pollutant, taking into account any federally enforceable conditions; and

2. Any equipment cannot operate at a location for more than twenty-four (24) consecutive months without an intervening relocation.

(Q) Refuse—Garbage, rubbish, trade wastes, leaves, salvageable material, agricultural wastes, or other wastes.

(R) Regulated air pollutant—All air pollutants or precursors for which any standard has been promulgated.

(S) Risk assessment levels (RALs)—Ambient concentrations of air toxics that are not expected to produce adverse cancer and non-cancer health effects during a defined period of exposure. The RALs are based upon animal toxicity studies, human clinical studies, and human epidemiology studies that account for exposure to sensitive populations such as the elderly, pregnant women, children, and those having respiratory illness such as asthma.

(T) Screening model action levels (SMALs)—The emission threshold of an individual hazardous air pollutant (HAP) or HAP group that triggers the need for an air quality analysis of the individual HAP.

(U) Shutdown—The cessation of operation of any air pollution control equipment or process equipment.

(V) Shutdown, permanent—See permanently shutdown.

(W) Start-up—The setting into operation of any air pollution control equipment or process equipment, except the routine phasing in of process equipment.

(X) Temporary installation—An installation that operates or emits pollutants less than two (2) years.

(3) Application and Permit Procedures.

(C) Applicant Responsibilities Regarding the Permit Application.

1. The applicant shall submit the information specified in the application package for each emissions unit being constructed or modified.

2. Certification by a responsible official. Any application form or report submitted pursuant to this rule shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, and any other certification, shall be signed by a responsible official and contain the following language: I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

3. The applicant shall supply the following supplemental information in addition to the application:

A. Additional information, plans, specifications, drawings, evidence, documentation, and monitoring data that the permitting authority may require to verify applicability and complete review under this rule;

B. Other information required by any applicable requirement. Specific information may include, but is not limited to, items such as testing reports, vendor information, material safety data sheets, or information related to stack height limitations developed pursuant to section 123 of the Clean Air Act;

C. Calculations on which the information in parts (3)(B)2.D.(I) through (3)(B)2.D.(VIII) of this rule are based;

D. Related information in sufficient detail necessary to establish compliance with the applicable standard reference test method, if any; and

E. Ambient air quality modeling data, in accordance with section (5) or (8) of this rule, for all pollutants requiring modeling to determine the air quality impact of the construction or modification of the installation.

4. Confidential information. An applicant may submit information to the permitting authority under a claim of confidentiality pursuant to 10 CSR 10-6.210. The confidentiality request needs to be submitted with the initial application to ensure confidentiality.

5. Duty to supplement or correct application. Any applicant that fails to submit any relevant facts or submits incorrect information in a permit application, upon becoming aware of the failure or incorrect submittal, shall promptly submit supplementary facts or corrected information. In addition, an applicant shall provide additional information, as necessary, to address any requirements that become applicable to the installation after the date an application is deemed complete, but prior to the issuance of the construction permit.

6. Filing fees in accordance with paragraph (3)(H)9. of this rule.

(D) Completeness Review of Application. Review of applications for completeness includes the following:

1. The permitting authority will review each application for completeness and inform the applicant within thirty (30) days if the application is not complete. In order to be complete, an application must include a completed application package and the information required in subsection (3)(C) of this rule.

2. If the permitting authority does not notify the applicant that its application is not complete within thirty (30) days of receipt of the application, the application shall be deemed complete. However, nothing in this subsection prevents the permitting authority from requesting additional information that is necessary to process the application.

3. The permitting authority maintains a checklist to be used for the completeness determination. A notice of incompleteness identifying the application's deficiencies will be provided to the applicant.

(E) Conditions that the permitting authority can require in permit. The permitting authority may impose conditions in a permit necessary to accomplish the purposes of this rule, any applicable requirements, or the Air Conservation Law, Chapter 643, RSMo. Less stringent conditions shall not take the place of any applicable requirements. Such conditions may include:

1. Operating or work practice constraints to limit the maximum level of emissions;

2. Emission control device efficiency specifications to limit the maximum level of emissions;

3. Maximum level of emissions;

4. Emission testing after commencing operations, to be conducted by the owner or operator, as necessary to demonstrate compliance with applicable requirements or other permit conditions;

5. Instrumentation to monitor and record emission data;

6. Other sampling and testing facilities;

7. Data reporting;

8. Post-construction ambient monitoring and reporting;

9. Sampling ports of a suitable size, number, and location; and

10. Safe access to each port.

(H) Fees.

1. All installations or source operations requiring permits under this rule must submit the application with a permit filing fee to the permitting authority. Failure to submit the permit filing fee constitutes an incomplete permit application according to subsection (3)(D) of this rule.

2. Upon receipt of an application for a permit or a permit amendment, a permit processing fee begins to accrue per hour of actual staff time. In lieu of the per-hour processing fee for relocation of portable plants subject to paragraph (4)(D)1. of this rule, a flat fee as specified in paragraph (3)(H)9. of this rule must be submitted by the applicant.

3. The permitting authority, upon request, will notify the applicant in writing if the permit processing fee approaches two thousand dollars ($2,000) and in two-thousand-dollar ($2,000) increments after that.

4. After making a final determination whether the permit should be approved, approved with conditions, or denied, the permitting authority will notify the applicant in writing of the final determination and the total permit processing fees due. The amount of the fee will be determined in accordance with paragraph (3)(H)9. of this rule.

5. The applicant shall submit fees for the processing of the permit application within ninety (90) calendar days of the final review determination, whether the permit is approved, denied, withdrawn, or not needed. After the ninety (90) calendar days, the unpaid processing fees will have interest imposed upon the unpaid amount at the rate of ten percent (10%) per annum from the date of billing until payment is made. Failure to submit the processing fees after the ninety (90) calendar days will result in the permit being denied (revoked for portable installation location amendments) and the rejection of any future permit applications by the same applicant until the processing fee plus interest has been paid.

6. Partially processed permits that are withdrawn after submittal are charged at the same processing fee rate in paragraph (3)(H)9. of this rule for the time spent processing the application.

7. The applicant shall pay for any publication of notice required and pay for the original and one (1) copy of the transcript, to be filed with the permitting authority, for any hearing required under this rule. No permit is issued until all publication and transcript costs have been paid.

8. The commission may reduce the permit processing fee or exempt any person from payment of the fee upon an appeal filed with the commission stating and documenting that the fee will create an unreasonable economic hardship upon the person.

9. Permit fees.

| Permit Application Type | Rule Section Reference | Filing Fee | Processing Fee |
|---|---|---|---|
| Portable Source Relocation Request | (4) | $300 | ---- |
| Minor | (5) | $250 | $75/hr |
| General Permit | (6) | $700 | ---- |
| NSR | (7) | $5,000 | $75/hr |
| PSD | (8) | $5,000 | $75/hr |
| HAP | (9) | $5,000 | $75/hr |
| Initial PAL | (7) or (8) | $5,000 | $75/hr |
| Renewal PAL | (7) or (8) | $2,500 | $75/hr |
| Temporary/Pilot | (10) | $250 | $75/hr |
| Permit Amendment | (11) | ---- | $75/hr |

10. No later than three (3) business days after receipt of the whole amount of the fee due, the permitting authority will send the applicant a notice of payment received. The permit will also be issued at this time, provided the final determination was for approval and the permit processing fee was timely received.

(I) Final Permit Issuance: Any installation subject to this rule will be issued a permit and be in effect if all of the following conditions are met:

1. Information is submitted to the permitting authority which is sufficient for the permitting authority to verify the annual emission rate and to verify that no applicable emission control rules will be violated;

2. No applicable requirements of the Air Conservation Law are violated;

3. The installation does not cause an adverse impact on visibility in any Class I area;

4. The installation will not interfere with the attainment or maintenance of NAAQS and the air quality standards established in 10 CSR 10-6.010;

5. The installation will not cause or contribute to ambient air concentrations in excess of any applicable maximum allowable increase listed in paragraph (5)(F)5. Table 2 of this rule, or be over the baseline concentration in any attainment or unclassified area;

6. The installation will not exceed the risk assessment levels required for all pollutants that exceed the screening model action levels; and

7. All permit fees are paid.

(4) Portable Equipment Permits, Amendments, and Relocations.

(A) Applicability. This section of the rule applies to construction or modification occurring at a portable equipment installation as defined in section (2) of this rule.

(D) The relocation of a portable plant from a site will follow the procedures outlined below:

1. For permitted portable equipment operating at a different location not previously approved in a permit or an amendment—

A. The owner or operator shall submit to the permitting authority a Portable Source Relocation Request, property boundary plot plan, and the equipment layout for the site;

B. Each relocation request shall be accompanied with the relocation fees as described in paragraph (3)(H)9. of this rule; and

C. The permitting authority shall make the final determination and, if appropriate, approve the relocation request no later than twenty-one (21) calendar days after receipt of the complete Portable Source Relocation Request; and

2. For permitted portable equipment operating at a location previously approved in a permit or an amendment, and conditions at the site have not changed (new sources approved to operate at the location)—

A. When relocating portable equipment to a site that is listed on the permit or on the amended permit, the owner or operator shall report the move to the permitting authority on a Portable Source Relocation Request for authorization to operate in a new location as soon as possible, but not later than seven (7) calendar days prior to ground breaking or initial equipment erection;

B. No fees are associated with this authorization; and

C. Authorization will be presumed if notification of denial is not received by the specified ground breaking or equipment erection date.

(E) The director may require an air quality analysis that is not required under subsection (5)(D) of this rule if it is likely that the emissions of the proposed construction or modification will affect air quality or the air quality standards listed in paragraphs (3)(I)3. through 6. of this rule or complaints filed in the vicinity.

(5) Minor Permits.

(A) Applicability. This section applies to the installations that need a permit under subsection (1)(A), but are not subject to:

1. Section (4), (7), (8), (9), or (10) of this rule; and

2. Do not request coverage under section (6) of this rule.

(D) Modeling Required. Any construction or modification, which has an emissions increase greater than *de minimis* threshold levels or the hazardous air pollutant is greater than the screening model action levels taking into account any federally enforceable conditions shall complete an air quality analysis for the affected pollutant in accordance with subsection (5)(F) of this rule. At minimum, the installation will demonstrate that the proposed construction or modification will not—

1. Interfere with the attainment or maintenance of NAAQS and the air quality standards established in 10 CSR 10-6.010; or

2. Cause or contribute to an exceedance of the risk assessment levels for all pollutants that exceed the screening model action levels.

(E) Exception: Notwithstanding the modeling required in subsection (5)(D) of this rule, the director may require additional air quality analysis if—

1. It is likely that the emissions of the proposed construction or modification will affect air quality or the air quality standards listed in paragraphs (3)(I)3. through 6. of this rule;

2. It is likely that the construction or modification will result in the discharge of hazardous air pollutants in quantities, of characteristics, and of a duration that directly and proximately cause or contribute to injury to human, plant, or animal life or the use of property; or

3. Complaints filed in the vicinity of the proposed construction or modification warrant an air quality analysis.

(F) Air Quality Analysis.

1. All estimates of ambient concentrations required under this subsection are based on applicable air quality models, databases, and other requirements specified in the U.S. Environmental Protection Agency's (EPA) Guideline on Air Quality Models at appendix W of 40 CFR 51 as specified in 10 CSR 10-6.030(21).

2. The air quality analysis demonstration required in subsection (5)(D) of this rule or required by the director in subsection (5)(E) of

this rule is deemed to have been made if the emissions increase from the proposed construction or modification alone would cause, in all areas, air quality impacts less than the amounts listed in Table 1 in paragraph (5)(F)3. of this rule.

3. Table 1—Significant Levels for Air Quality Impact in Class II Areas.

| Pollutant | Averaging Time | | | | |
|---|---|---|---|---|---|
| | Annual | 24-hour | 8-hour | 3-hour | 1-hour |
| $SO_2$ | 1.0 | 5 | | 25 | 7.9 |
| $PM_{10}$ | | 5 | | | |
| $PM_{2.5}$ | 0.2 | 1.2 | | | |
| $NO_2$ | 1.0 | | | | 7.5 |
| CO | | | 500 | | 2000 |
| Individual HAP Significant Impact Levels are equal to four (4) percent of the respective Risk Assessment Levels listed in the table referenced in subparagraph (5)(F)6.A. of this rule. | | | | | |

*Note: All impacts in micrograms per cubic meter.*

4. In the event the director requires modeling under subsection (5)(E) of this rule, ambient air concentration increases shall be limited to the applicable maximum allowable increase listed in Table 2 over the baseline concentration in any attainment or unclassified area. Table 2 is located in paragraph (5)(F)5. of this rule.

5. Table 2—Ambient Air Increment Table.

| **Pollutant** | **Maximum Allowable Increase** |
|---|---|
| Class I Areas | |
| Particulate Matter 2.5 Micron: | |
| Annual arithmetic mean | 1 |
| 24-hour maximum | 2 |
| Particulate Matter 10 Micron: | |
| Annual arithmetic mean | 4 |
| 24-hour maximum | 8 |
| Sulfur Dioxide: | |
| Annual arithmetic mean | 2 |
| 24-hour maximum | 5 |
| 3-hour maximum | 25 |
| Nitrogen Dioxide: | |
| Annual arithmetic mean | 2.5 |
| Class II Areas | |
| Particulate Matter 2.5 Micron: | |
| Annual arithmetic mean | 4 |
| 24-hour maximum | 9 |
| Particulate Matter 10 Micron: | |
| Annual arithmetic mean | 17 |
| 24-hour maximum | 30 |
| Sulfur Dioxide: | |
| Annual arithmetic mean | 20 |
| 24-hour maximum | 91 |
| 3-hour maximum | 512 |
| Nitrogen Dioxide: | |
| Annual arithmetic mean | 25 |
| Class III Areas | |
| Particulate Matter 2.5 Micron: | |
| Annual arithmetic mean | 8 |
| 24-hour maximum | 18 |
| Particulate Matter 10 Micron: | |
| Annual arithmetic mean | 34 |
| 24-hour maximum | 60 |
| Sulfur Dioxide: | |
| Annual arithmetic mean | 40 |
| 24-hour maximum | 182 |
| 3-hour maximum | 700 |
| Nitrogen Dioxide: | |
| Annual arithmetic mean | 50 |

*Notes:*

*1. All increases in micrograms per cubic meter. For any period other than an annual period, the applicable maximum allowable increase may be exceeded during one (1) period once per year at any one (1) location.*

*2. There are two (2) Class I Areas in Missouri–one (1) in Taney County (Hercules Glade) and one (1) in Wayne and Stoddard Counties (Mingo Refuge).*

*3. There are no Class III Areas in Missouri at this time.*

6. Hazardous air pollutants table and public review.

A. The director shall maintain a table of risk assessment levels and screening model action levels for hazardous air pollutants.

B. Public review: The permitting authority will make available for public review any changes to risk assessment levels or screening model action levels of any hazardous air pollutant in accordance with the following procedures:

(I) The permitting authority issues a draft proposal for use of alternate risk assessment levels or screening model action levels and any supporting information relied upon for the proposed changes by publishing a notice on the permitting authority's website;

(II) Any interested person may submit relevant information materials and views to the permitting authority, in writing, until the thirtieth day after the date of publication of the notice. The comment period may be extended by thirty (30) calendar days if a written request is received within twenty-five (25) calendar days of the original notice;

(III) The permitting authority considers all written comments submitted within the time specified in the public notice in making the final decision on the approvability of the values subject to change;

(IV) The permitting authority makes a final determination on whether to approve, approve with changes, or deny the changes;

(V) Any changes made to the proposed values as a result of public comments will go through public notice again following the procedures outlined in parts (5)(F)6.B.(I) through (V) of this rule;

(VI) Final decisions and response to comments will be made available to the public on the permitting authority's website; and

(VII) The values become effective on the date of final publication. The permitting authority shall finalize the values within thirty (30) days from the end of the public comment period.

7. Special considerations for stack heights and dispersion techniques.

A. The degree of emission limitation necessary for control of any air pollutant under this rule is not affected in any manner by—

(I) That amount of the stack height of any installation exceeding GEP stack height; or

(II) Any other dispersion technique.

B. Paragraph (5)(F)7. of this rule does not apply to stack heights on which construction commenced on or before December 31, 1970, or to dispersion techniques implemented on or before December 31, 1970.

C. Before the permitting authority issues a permit under this rule based on stack heights that exceed GEP, the permitting authority must notify the public of the availability of the demonstration study and provide opportunity for a public hearing.

D. This paragraph does not require that actual stack height or the use of any dispersion technique be restricted in any manner.

(6) General Construction Permit.

(B) Public Participation Requirements.

1. Before issuing a general construction permit, the permitting authority must provide a thirty (30)-calendar-day period for the public to review the general construction permit and the materials relied upon for its development. The permitting authority will solicit comments on the draft general construction permit by electronically publishing a notice on the department's website and sending a copy of

the notice to the administrator.

2. The public notice will contain the following:

A. A description of the general construction permit and the category of emission units it is expected to cover;

B. The locations available for public inspection of the materials listed in paragraph (6)(B)4. of this rule. The locations at minimum shall include the Air Pollution Control Program's central office and a posting on the department's website; and

C. The procedures for submitting comments as stated in paragraph (6)(B)3. of this rule.

3. Public comment: Any interested person may submit relevant information materials and views to the permitting authority, in writing, until the end of the thirtieth day after the date of publication of the notice.

4. The following materials will be made available for public inspection during the entire public notice period: the draft general permit for each source category and the documents listed in paragraph (6)(A)2. of this rule. This will not include any confidential information as defined in 10 CSR 10-6.210.

(7) Nonattainment Area Major Permits.

(A) Definitions. Solely for the purposes of this section, the following definitions apply to terms in place of definitions for which the term is defined elsewhere, including the reference to 40 CFR 52.21 in paragraph (7)(B)6. of this rule:

1. Chemical process plant—These plants include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140;

2. Major stationary source is defined in 40 CFR 51.165(a)(1)(iv) as specified in 10 CSR 10-6.030(21);

3. Major modification is defined in 40 CFR 51.165(a)(1)(v) as specified in 10 CSR 10-6.030(21), except that any incorporated provisions that are stayed shall not apply. The term major, as used in this definition, means major for the nonattainment pollutant;

4. Net emissions increase is defined in 40 CFR 51.165(a)(1)(vi) as specified in 10 CSR 10-6.030(21); and

5. Significant is defined in 40 CFR 51.165(a)(1)(x) as specified in 10 CSR 10-6.030(21).

(B) Applicability Procedures. The following provisions of this subsection are used to determine, prior to beginning actual construction, if a project is a new major stationary source or a major modification at an existing stationary source:

1. Except for sources with a Plantwide Applicability Limit (PAL) in compliance with subsection (7)(D) of this rule, and in accordance with the definition of the term major modification contained in paragraph (7)(A)3. of this rule, a project is a major modification if it causes two (2) types of emissions increases for the nonattainment pollutant—a significant emissions increase and a significant net emissions increase. The project is not a major modification if it does not cause a significant emissions increase. If the project causes a significant emissions increase, then the project is a major modification only if it also results in a significant net emissions increase;

2. The emissions increase from the project is determined by taking the sum of the emissions increases from each emissions unit affected by the project. An emissions unit is considered to be affected by the project if an emissions increase from the unit would occur as a result of the project, regardless of whether a physical change or change in the method of operation will occur at the particular emissions unit;

3. For each existing emissions unit affected by the project, the emissions increase is determined by taking the difference between the projected actual emissions for the completed project and the baseline actual emissions. In accordance with the definition of the term projected actual emissions found in 40 CFR 52.21 as referred to in section (2) of this rule, the owner or operator of the major stationary source may elect to use the existing emission unit's potential to emit in lieu of the projected actual emissions for this calculation;

4. For each new emissions unit affected by the project, the emissions increase is equal to the potential to emit;

5. The procedure for calculating the net emissions increase (the significance of which is the second criterion for determining if a project is a major modification) is contained in the definition of the term net emissions increase found in section (2) of this rule; and

6. The provisions of subsection (7)(B) of this rule do not apply to a source or modification that would be a major stationary source or major modification only if fugitive emissions, to the extent quantifiable, are considered in calculating the potential to emit of the stationary source or modification, and the source does not belong to one (1) of the source categories listed in items (i)(1)(vii)(a)–(aa) of 40 CFR 52.21, which is incorporated by reference in subsection (8)(A) of this rule.

(H) The director of the Missouri Department of Natural Resources' Air Pollution Control Program shall transmit to the administrator of the EPA a copy of each permit application filed under section (7) of this rule and notify the administrator of each significant action taken on the application.

(8) Attainment and Unclassified Area Major Permits.

(B) Administrator as it appears in 40 CFR 52.21 means the director of the Missouri Department of Natural Resources' Air Pollution Control Program except in the following, where it refers to the administrator of the EPA:

1. (b)(17) Federally enforceable;
2. (b)(37)(i) Repowering;
3. (b)(43) Prevention of Significant Deterioration (PSD) program;
4. (b)(48)(ii)(c);
5. (b)(50) Regulated NSR pollutant;
6. (b)(51) Reviewing authority;
7. (g) Redesignation;
8. (l) Air quality models;
9. (p)(2) Federal Land Manager; and
10. (t) Disputed permits or redesignations.

(D) The director of the Missouri Department of Natural Resources' Air Pollution Control Program shall transmit to the administrator of the EPA a copy of each permit application filed under section (8) of this rule and notify the administrator of each significant action taken on the application.

(10) Temporary Operations and Pilot Trials.

(D) The director may require an air quality analysis of the temporary operation or pilot trial if it is likely that the emissions of the proposed construction or modification will affect air quality or the air quality standards listed in paragraphs (3)(I)3. through 6. of this rule or complaints filed in the vicinity of the proposed construction or modification warrant an air quality analysis.

(11) Permit Amendments to Final Permits.

(I) Amended permit fees are subject to the requirements of paragraph (3)(H)9. of this rule.

(12) Appendices.

(A) Appendix A, Public Participation.

1. This subsection shall apply to applications under sections (7), (8), and (9) of this rule, applications for source operations or installations emitting five (5) or more tons of lead per year, and applications containing GEP stack height demonstrations that exceed GEP.

2. For those applications subject to section (7), (8), or (9) of this rule, the permit issuance process timeline of one hundred eight four (184) days includes a forty (40)-day public comment period with an opportunity for a public hearing and the period for the permitting authority's response to comments that were submitted during the public comment period.

A. Draft for public comment and public hearing opportunity. The permitting authority shall issue a draft permit and solicit comments and requests for a public hearing by publishing a notice in a

newspaper of general circulation within or nearest to the county in which the project is proposed to be constructed or operated. In lieu of the newspaper notice, the notice may be an electronic notice posted on the department's website.

B. Public notice. The public notice shall include the following:

(I) Name, address, phone number, and representative of the agency issuing the public notice;

(II) Name and address of the applicant;

(III) A description of the proposed project, including its location and permits applied for;

(IV) For permits issued pursuant to section (7), a description of the amount and location of emission reductions that will offset the emissions increase from the new or modified source; and include information on how LAER was determined for the project, when appropriate;

(V) For permits issued pursuant to section (8), the degree of increment consumption, when appropriate;

(VI) The permitting authority's draft permit and a statement of permitting's authority to approve, approve with conditions, or deny a permit;

(VII) A statement that the public may request a public hearing on the draft permit as stated in subparagraph (12)(A)2.E. of this rule and that the public hearing will be canceled if a request is not received;

(VIII) A statement that any interested person may submit relevant information materials and views on the draft permit as stated in subparagraph (12)(A)2.F. of this; and

(IX) The time and location of the public hearing if one is requested.

C. Materials made available during the public notice period. The following materials shall be made available for public inspection during the entire public notice period at the Department of Natural Resources regional office in the region in which the proposed installation or major modification would be constructed, as well as at the Air Pollution Control Program office.

(I) A copy of materials submitted by the applicant and used in making the draft permit;

(II) A copy of the draft permit; and

(III) A copy or summary of other materials, if any, considered in making the draft permit.

D. Distribution of public notice. At the start of the public notice period, the permitting authority sends a copy of the public notice to the following:

(I) The applicant; and

(II) To officials and agencies having cognizance over the location where the proposed construction would occur as follows:

(a) The administrator;

(b) Local air pollution control agencies;

(c) The chief executive of the city and county where the installation or modification would be located;

(d) Any comprehensive regional land use planning agency;

(e) Any state air program permitting authority;

(f) Any Federal Land Manager (FLM) whose lands may be affected by emissions from the installation or modification; and

(g) Any Indian Governing Body whose lands may be affected by emissions from the installation or modification.

E. Public hearing.

(I) A public hearing shall be scheduled not less than thirty (30) nor more than forty (40) days from the date of publication of the notice.

(II) The public hearing will be held by the department if a public hearing request is received within twenty-eight (28) days of the publication of the notice, otherwise the public hearing will be canceled.

(III) At the public hearing, any interested person may submit any relevant information, materials, and views in support of or opposed to the permit.

(IV) The public hearing shall be held in the county in which all or a major part of the proposed project is to be located.

(V) The permitting authority may designate another person to conduct any hearing under this section.

F. Public comment. Any interested person may submit relevant information materials and views to the permitting authority, in writing, until the end of the fortieth day after the date of publication of the notice for public hearing.

G. Public comment and applicant response. The permitting authority shall consider all written comments submitted within the time specified in the public notice and all comments received at the public hearing, if one is held, in making a final decision on the approvability of the application. No later than ten (10) days after the close of the public comment period, the applicant may submit a written response to any comments submitted by the public. The permitting authority shall consider the applicant's response in making a final decision. The permitting authority shall make all comments available for public inspection in the same locations where the permitting authority made available prehearing information relating to the proposed installation or modification. Further, the permitting authority shall prepare a written response to all comments under the purview of the Air Pollution Control Program and make them available at the locations referred to previously.

H. Final permit. The permitting authority shall make the final permit available for public inspection at the same locations where the permitting authority made available prehearing information and public comments relating to the installation or modification. The permitting authority shall submit a copy of this final permit to the administrator.

I. Public notice exception. If the administrator has provided public notice and opportunity for public comment and hearing equivalent to that provided by this subsection, the permitting authority may make a final determination without providing public notice and opportunity for public comment and hearing required by this subsection.

3. This paragraph is for those applications not subject to section (7), (8), or (9) of this rule, but which propose an emission of five (5) or more tons of lead per year or applications containing GEP stack height demonstrations. For these applications, completing the final determination within ninety (90) calendar days after receipt of the complete application involves performing the same public participation activities as those subject to section (7), (8), or (9) of this rule, but within shorter time frames. The following specifies the new time frames:

A. Public notice shall begin no later than forty-five (45) calendar days after receipt of a complete application;

B. The public comment period will last for thirty (30) calendar days, starting with the public notice;

C. Public hearing—The public hearing will be scheduled between days twenty-three (23) and thirty (30). The permitting authority will accept comments up to the thirtieth day; and

D. Applicant response—No later than five (5) calendar days after the end of the public comment period, the applicant may submit a written response to any comments submitted.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 10—Air Conservation Commission
## Chapter 6—Air Quality Standards, Definitions, Sampling and Reference Methods and Air Pollution Control Regulations for the Entire State of Missouri

### ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo 2016, the commission amends a rule as follows:

10 CSR 10-6.062 is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 1, 2018 (43 MoReg 2101-2104). Those sections with changes are reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received four (4) comments from three (3) sources: the U.S. Environmental Protection Agency (EPA); Newman, Comley, and Ruth P.C.; and the St. Louis County Department of Public Health.

Due to similar concerns expressed in the following two (2) comments, one (1) response that addresses these concerns is at the end of these two (2) comments.

COMMENT #1: The EPA recommends that the department retain the language proposed for deletion from subparagraph (3)(B)2.E. that specifies the operational temperature of the second chamber of the incinerator. It would be unclear to the public what temperature is to be monitored, and whether an alarm would be triggered by a temperature excursion, if this language is removed from the rule.
COMMENT #2: The proposed rule allows the use of manufacturer's specification or a stack test to show 99.9% combustion efficiency, however, it is unclear from the rule what minimum temperature is required if a stack test option is used. EPA recommends that the department add a minimum temperature requirement and ensure that the requirement in the rule is clear. For example, is it the average temperature during the test, the lowest temperature during the test, or some other temperature? The department should also make clear how the combustion efficiency is determined, the test methods used, and what pollutants are measured.
RESPONSE AND EXPLANATION OF CHANGE: The goal of the Permit-by-Rule is to streamline construction permitting by developing a standard set of conditions for routine projects. The purpose of the temperature requirement in the rule is to ensure that an incinerator is operated in such a way as to achieve proper combustion. Companies have routinely demonstrated that it is possible to achieve a 99.9% combustion efficiency at temperatures less than 1,600 degrees Fahrenheit. Thus, companies were not utilizing the permit-by-rule process and choosing to receive permits under 10 CSR 10-6.060 in order to have a lower temperature requirement. The change in the temperature requirement allows flexibility to companies to establish the minimum temperature that the secondary combustion chamber must be operated based upon either manufacturer's specification or stack testing. This is the same approach as would be allowed if a company to receive a permit under 10 CSR 10-6.060 and will allow more companies to utilize the permit-by-rule regulation. Subsection (3)(A) requires that all representations made in the notification regarding construction plans, operating procedures, and maximum emission rates become conditions upon the notification. Thus, the minimum temperature and residence time will need to be part of the notification, and thus conditions of the permit. So, the public will be able to tell from the permit what the minimum temperature and residence time are. As a result of this comment, subparagraph (3)(B)2.E. was changed to establish how the minimum temperature is set.

Due to similar concerns expressed in the following two (2) comments, one (1) response that addresses these concerns is at the end of these two (2) comments.

COMMENT #3: Newman, Comley, and Ruth P.C. made a general comment that removing the word "shall" from a rule requirement could be interpreted that the requirement is no longer necessary. Regulations must be clear and concise as to the intent of the regulation. The department should review all instances of deleting the word "shall" and consider retaining it.
COMMENT #4: The St. Louis County Department of Public Health commented in support of Comment #3 because regulation requirements must be clear for enforcement purposes.
RESPONSE: The department appreciates these concerns over removal of the word "shall" in rule text. All 10 CSR 10 rules were reviewed in compliance with Executive Order 17-03 with the purpose of making rule requirements clear. Staff reviewed the executive order rulemakings and determined that, in certain instances, the removal of the word "shall" may be interpreted to suggest that a previously mandatory obligation had become discretionary. For this rulemaking, staff re-reviewed the use of the word "shall" and, since removal of the word "shall" did not change the regulatory requirement, no changes were made to the rule text as a result of these comments.

**10 CSR 10-6.062 Construction Permits By Rule**

(3) General Provisions.

(B) Permit-by-Rule.

1. Printing operations. Any printing operation (including, but not limited to, screen printers, ink-jet printers, presses using electron beam or ultraviolet light curing, and labeling operations) and supporting equipment (including, but not limited to, corona treaters, curing lamps, preparation, and cleaning equipment) which operate in compliance with the following conditions is permitted under this rule:

A. The uncontrolled emission of volatile organic compounds (VOCs) from inks and solvents (including, but not limited to, those used for printing, cleanup, or makeup) does not exceed forty (40) tons per twelve (12)-month period, rolled monthly, for all printing operations on the property. The emissions shall be calculated using a material balance that assumes that all of the VOCs in the inks and solvents used are directly emitted to the atmosphere;

B. The uncontrolled emission of hazardous air pollutants does not exceed ten (10) tons per twelve (12)-month period, rolled monthly, for all printing operations on the property. The emissions shall be calculated using a material balance that assumes that all hazardous air pollutants used are directly emitted to the atmosphere;

C. Copying and duplicating equipment employing the xerographic method are exempt from subparagraphs (3)(B)1.D.–G. of this rule;

D. Printing presses covered by this section do not utilize heat set, thermo set, or oven-dried inks. Heated air may be used to shorten drying time, provided the temperature does not exceed one hundred ninety-four degrees Fahrenheit (194°F);

E. Screen printing operations requiring temperatures greater than one hundred ninety-four degrees Fahrenheit (194°F) to set the ink are exempt from subparagraph (3)(B)1.D. of this rule;

F. The facility is not located in an ozone nonattainment area; and

G. Record keeping. The operator shall maintain records of ink and solvent usage and shall be kept in sufficient detail to show compliance with subparagraphs (3)(B)1.A. and 1.B. of this rule.

2. Crematories and animal incinerators. Any crematory or animal incinerator that burns for disposal ninety percent (90%) or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of human remains, human pathological wastes, or animal carcasses and operates in compliance with the following conditions is permitted under this rule:

A. The materials to be disposed of are limited to noninfectious human materials removed during surgery, labor and delivery, autopsy, or biopsy including body parts, tissues and fetuses, organs, bulk blood and body fluids, blood or tissue laboratory specimens; and other noninfectious anatomical remains or animal carcasses in whole or in part. Illegal and waste pharmaceutical drugs may also be burned for disposal provided they constitute less than ten percent (10%) by weight (on a calendar quarter basis and excluding the

weight of auxiliary fuel and combustion air). The owner or operator shall minimize the amount of packaging fed to the incinerator, particularly plastic containing chlorine. The incinerators shall not be used to dispose of other non-biological medical wastes including, but not limited to, sharps, rubber gloves, intravenous bags, tubing, and metal parts;

B. The manufacturer's rated capacity (burn rate) is two hundred (200) pounds per hour or less;

C. The incinerator is a dual-chamber design;

D. Burners are located in each chamber, sized to manufacturer's specifications, and operated as necessary to maintain the minimum temperature requirements of subparagraph (3)(B)2.E. of this rule at all times when the unit is burning waste;

E. The secondary combustion chamber shall maintain a minimum temperature and gas residence time established through manufacturer's specification or stack test results that demonstrate a ninety-nine point nine percent (99.9%) combustion efficiency. The temperature shall be monitored with equipment that is accurate to plus or minus two percent (+2%) and continuously recorded. The thermocouples or radiation pyrometers shall be fitted to the incinerator and wired into a manual reset noise alarm such that if the temperature in either of the two (2) chambers falls below the minimum temperature above, the alarm will sound at which time plant personnel shall take immediate measures to either correct the problem or cease operation of the incinerator until the problem is corrected;

F. There are no obstructions to stack flow, such as by rain caps, unless such devices are designed to automatically open when the incinerator is operated. Properly installed and maintained spark arresters are not considered obstructions;

G. Each incinerator operator is trained in the incinerator operating procedures as developed by the American Society of Mechanical Engineers (ASME), by the incinerator manufacturer, or by a trained individual with more than one (1) year experience in the operation of the incinerator that the trainee will be operating. Minimum training shall include basic combustion control parameters of the incinerator and all emergency procedures to be followed should the incinerator malfunction or exceed operating parameters. An operator who meets the training requirements of this condition shall be on duty and immediately accessible during all periods of incinerator operation. The manufacturer's operating instructions and guidelines shall be posted at the unit and the unit shall be operated in accordance with these instructions;

H. The incinerator has an opacity of less than ten percent (10%) at all times;

I. Heat is provided by the combustion of natural gas, liquid petroleum gas, or Number 2 fuel oil with less than fifteen ten thousandths percent (0.0015%) sulfur by weight, or by electric power; and

J. Record keeping. The operator shall maintain a log of all alarm trips and the resultant action taken. A written certification of the appropriate training received by the operator, with the date of training, that includes a list of the instructor's qualifications or ASME certification school shall be maintained for each operator. The operator shall maintain an accurate record of the monthly amount and type of waste combusted.

3. Surface coating. Any surface coating activity or stripping facility that operates in compliance with the following conditions is permitted under this rule:

A. Metalizing, spraying molten metal onto a surface to form a coating, is not permitted under this permit-by-rule. The use of coatings that contain metallic pigments is permitted;

B. All facilities implement good housekeeping procedures to minimize fugitive emissions, including:

(I) Cleaning up spills immediately;

(II) Operating booth or work area exhaust fans when cleaning spray guns and other equipment; and

(III) Storing new and used coatings and solvents in closed containers and removing all waste coatings and solvents from the site by an authorized disposal service or disposing of them at a permitted on-site waste management facility;

C. Drying and curing ovens are either electric or meet the following conditions:

(I) The maximum heat input to any oven must not exceed forty (40) million British thermal units (Btus) per hour; and

(II) Heat shall be provided by the combustion of one (1) of the following: natural gas; liquid petroleum gas; fuel gas containing no more than twenty (20.0) grains of total sulfur compounds (calculated as sulfur) per one hundred (100) dry standard cubic feet; or Number 2 fuel oil with not more than fifteen ten thousandths percent (0.0015%) sulfur by weight;

D. Emissions are calculated using a material balance that assumes that all VOCs and hazardous air pollutants in the paints and solvents used are directly emitted to the atmosphere. The total uncontrolled emissions from the coating materials (as applied) and cleanup solvents shall not exceed the following for all operations:

(I) Forty (40) tons per twelve (12)-month period, rolled monthly, of VOCs for all surface coating operations on the property;

(II) A sum of twenty-five (25) tons per twelve (12)-month period, rolled monthly, of all hazardous air pollutants for all surface coating operations on the property; and

(III) Each individual hazardous air pollutant shall not exceed the emission threshold levels established in 10 CSR 10-6.060(12)(J), rolled monthly;

E. The surface coating operations are performed indoors, in a booth, or in an enclosed work area. The booth shall be designed to meet a minimum face velocity at the intake opening of each booth or work area of one hundred feet (100') per minute. Emissions shall be exhausted through elevated stacks that extend at least one and one-half (1 1/2) times the building height above ground level. All stacks shall discharge vertically. There shall be no obstructions to stack flow, such as rain caps, unless such services are designed to automatically open when booths are operated;

F. For spraying operations, emissions of particulate matter are controlled using either a water wash system or a dry filter system with a ninety-five percent (95%) removal efficiency as documented by the manufacturer. The face velocity at the filter shall not exceed two hundred fifty feet (250') per minute or that specified by the filter manufacturer, whichever is less. Filters shall be replaced according to the manufacturer's schedule or whenever the pressure drop across the filter no longer meets the manufacturer's recommendation;

G. Coating operations are conducted at least fifty feet (50') from the property line and at least two hundred fifty feet (250') from any recreational area, residence, or other structure not occupied or used solely by the owner or operator of the facility or the owner of the property upon which the facility is located;

H. The facility is not located in an ozone nonattainment area; and

I. Record keeping. The operator shall maintain the following records and reports:

(I) All material safety data sheets for all coating materials and solvents;

(II) A monthly report indicating the days the surface coating operation was in operation and the total tons emitted during the month, and the calculation showing compliance with the rolling average emission limits of subparagraph (3)(B)3.D. of this rule;

(III) A set of example calculations showing the method of data reduction including units, conversion factors, assumptions, and the basis of the assumptions; and

(IV) These reports and records shall be immediately available for inspection at the installation.

4. Livestock markets and livestock operations. Any livestock market or livestock operation including animal feeding operations and concentrated animal feeding operations as those terms are defined by 40 CFR 122.23, that was constructed after November 30, 2003, and operates in compliance with the following conditions is permitted under this rule. In addition, any manure storage and

application system directly associated with the livestock markets or livestock operations such that these manure storage and application systems are operated in compliance with the following conditions are also permitted under this rule:

A. All facilities implement the following building cleanliness and ventilation practices:

(I) Buildings are cleaned thoroughly between groups of animals;

(II) Manure and spilled feed are scraped from aisles on a regular basis, at least once per week;

(III) Ventilation fans, louvers, and cowlings are regularly cleaned to prevent excessive buildup of dust, dirt, or other debris that impairs performance of the ventilation system;

(IV) Air inlets are cleaned regularly to prevent excessive buildup of dust, dirt, or other debris that reduces airflow through the inlets;

(V) Ceiling air inlets are adjusted to provide adequate airflow (based on design ventilation rates) to the building interior;

(VI) For high-rise structures, the manure storage area includes engineered natural or mechanical ventilation. This ventilation must be maintained and cleaned regularly to prevent excessive buildup of dust, dirt, or other debris that impairs performance of the ventilation system;

(VII) For deep-bedded structures, bedding and/or litter used in the animal living area is maintained in a reasonably clean condition. Indications that the bedding is not reasonably clean include extensive caking, manure coating animals or birds, and the inability to distinguish bedding material from manure. Bedding or litter with excessive manure shall be removed and replaced with clean bedding or litter; and

(VIII) For automatic feed delivery systems, feed lines have drop tubes that extend into the feeder to minimize dust generation;

B. All facilities implement the following manure storage practices:

(I) Buildings with flush alleys, scrapers, or manure belts are operated to remove manure on a regular schedule, at least daily;

(II) Buildings with shallow pits, four feet (4') deep or less, are emptied on a regular schedule, at least once every fourteen (14) days;

(III) Feed, other than small amounts spilled by the animals, is not disposed of in the manure storage system;

(IV) All lagoons are regularly monitored for solids buildup, at least once every five (5) years. Lagoon sludge shall be removed and properly disposed of when the sludge volume equals the designed sludge volume; and

(V) Manure compost piles or windrows are turned or otherwise mixed regularly so that the temperature within the pile or windrow is maintained between one hundred five degrees Fahrenheit (105°F) and one hundred fifty degrees Fahrenheit (150°F);

C. The operator considers wind direction and velocity when conducting surface land application, and manure is not applied within five hundred (500') feet from a downwind inhabited residence;

D. Dead animals are not disposed of in the manure storage system unless the system is specifically designed and managed to allow composting of dead animals. Dead animals shall be removed from buildings daily; and

E. Record keeping. *(Not Applicable)*

## Title 10—DEPARTMENT OF NATURAL RESOURCES
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## Chapter 6—Air Quality Standards, Definitions, Sampling and Reference Methods and Air Pollution Control Regulations for the Entire State of Missouri

### ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo 2016, the commission amends a rule as follows:

**10 CSR 10-6.065** Operating Permits **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 1, 2018 (43 MoReg 2104-2126). No changes were made in the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received a total of seven (7) comments on this rulemaking. Three (3) comments on this rulemaking were from the U.S. Environmental Protection Agency (EPA), one (1) comment was from Newman, Comley, and Ruth, two (2) comments were from the St. Louis County Department of Public Health, and one (1) comment was from the Regulatory Environmental Group For Missouri (REGFORM).

COMMENT #1: The EPA commented that, as previously recommended, the department should revise items 2. and 3. of the Regulatory Impact Report (RIR) to clarify which sources specifically would no longer need to obtain a basic operating permit, how the department will be made aware of the presence of new sources if not requiring a basic operating permit, which "other air program rules" the source would need to follow and how compliance with "other air program rules" will be enforced. The Response to Comment document states that these changes were made; however, EPA does not see the revised language to items 2. and 3. in the RIR posted on the Missouri Regulatory Action Tracking System webpage.
RESPONSE: The department has updated the RIR and updated the reference document on the department web site. In the updated RIR, the department provided additional information on which sources specifically would no longer need to obtain a basic operating permit, how the department would be made aware of the presence of new sources if not requiring a basic operating permit, which "other air program rules" the source would need to follow, and how compliance with "other air program rules" would be enforced. No changes were made to the rule text as a result of this comment.

COMMENT #2: The EPA commented that, as previously commented, they recommend the department create separate standalone rules (e.g., promulgating 10 CSR 10-6.066 Intermediate State Permits to Operate and 10 CSR 10-6.067 Title V Operating Permits) to increase clarity to the public on the different permitting programs in the state and the permitting expectations of those programs if the department finalizes the revisions to 10 CSR 10-6.065 as proposed (i.e., removing the basic operating permit program).
RESPONSE: As responded to previously, the department plans to review separating 10 CSR 10-6.065 into two (2) rules for Intermediate State Operating Permits and Operating Permits. The department will continue to evaluate ways to improve the clarity of this rule, including EPA's suggestion to separate this rule into two (2) separate rules. However, the department does not plan on pursuing this option at this time. No changes were made to the rule text as a result of this comment.

COMMENT #3: The EPA commented that, as previously commented, they recommend that the department consider switching the requirement, in subsection (5)(D), that a source provide notification to the state if it wants to optout of unified review to a requirement that a source provide notification to the state if it wants to opt-in to unified review instead.
RESPONSE: As responded to previously, section 643.078.3 RSMo. reads that "Any person who wishes to construct or modify and operate any regulated air contaminant source shall submit an application

to the department for the unified review of a construction permit application under section 643.075 and an operating permit application under this section, unless the applicant requests in writing that the construction and operating permit applications be reviewed separately". Because of the authority granted in section 643.078.3 RSMo., subsection (5)(D) cannot be changed. As a result of this comment no changes have been made to rule text.

Due to similar concerns expressed in the following two (2) comments, one (1) response that addresses these concerns is at the end of these two (2) comments.

COMMENT #4: Newman, Comley, and Ruth P.C. made a general comment that removing the word "shall" from a rule requirement could be interpreted that the requirement is no longer necessary. Regulations must be clear and concise as to the intent of the regulation. The department should review all instances of deleting the word "shall" and consider retaining it.
COMMENT #5: The St. Louis County Department of Public Health commented in support of Comment #4 because regulation requirements must be clear for enforcement purposes.
RESPONSE: The department appreciates these concerns over removal of the word "shall" in rule text. All 10 CSR 10 rules were reviewed in compliance with Executive Order 17-03 with the purpose of making rule requirements clear. Staff reviewed the executive order rulemakings and determined that, in certain instances, the removal of the word "shall" may be interpreted to suggest that a previously mandatory obligation had become discretionary. For this rulemaking, staff re-reviewed the use of the word "shall" and, since removal of the word "shall" did not change the regulatory requirement, no changes were made to the rule text as a result of these comments.

COMMENT #6: REGFORM commented that they support the removal of a Basic State Operating Permit for certain small air sources and elimination of this provision meets the Red Tape Reduction initiative to remove regulatory burdens not associated with any related environmental benefits.
RESPONSE: The department appreciates this supportive comment to remove unnecessary regulatory burdens that are not connected with environmental benefits, while still meeting Red Tape Reduction directives. No changes were made to rule text as a result of this comment.

COMMENT #7: The St. Louis County Air Pollution Control Program commented that they support the proposed revisions in this rulemaking.
RESPONSE: The department appreciates this supportive comment of the proposed rule amendment, and as a result of this comment no changes have been made to rule text.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 10—Air Conservation Commission
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### ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo 2016, the commission amends a rule as follows:

10 CSR 10-6.170 is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 1, 2018 (43 MoReg 2126-2127). Those sections with changes are reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received eight (8) comments on this rulemaking: two (2) from the U.S. Environmental Protection Agency (EPA), three (3) from Newman, Comley, and Ruth P.C., and three (3) from St. Louis County Department of Public Health.

COMMENT #1: The EPA commented that they previously recommended that the department add provisions to the rule to make it clear what a "reasonable degree" is, which "techniques" the director might approve, and how the director might make that determination. The EPA believes it is appropriate to provide this comment since these recommendations would strengthen the rule language and/or provide clarity to the public. Without these provisions, EPA would need to evaluate the approvability of this provision when submitted as a State Implementation Plan revision.
RESPONSE: Due to the broad applicability of this rule it is difficult to draft rule language that could be applied in all cases to which this rule applies. The necessary measures for determining the origin and nature of particulate matter emissions that travel beyond a property line are handled on a case by case basis. In many cases the nature and origin of fugitive particulate matter emissions is obvious and does not require any scientific measurements. In cases where a more rigorous investigation is required, the department will use the techniques necessary to make a reasonable determination. No changes were made to the rule text as a result of this comment.

COMMENT #2: The EPA recommends that the department provide regulatory language on what record keeping and reporting requirements would exist for a facility to determine compliance with the rule.
RESPONSE: Since this rule does not prescribe monitoring or control requirements the department cannot designate record keeping or reporting requirements. No changes were made to the rule text as a result of this comment.

COMMENT #3: The St. Louis County Department of Public Health commented, in part (3)(A)1.A.(IV), a semi-colon is used after the word facility, followed by the word "or". Both the semi-colon and the word "or" seem to be typos. It appears the semi-colon should instead be a period, and the word "or" should be removed.
RESPONSE: The rule text in part (3)(A)1.A.(IV) is correct as proposed because it transitions the rule text into the next subparagraph. No changes were made to the rule text as a result of this comment.

Due to similar concerns expressed in the following two (2) comments, one (1) response that addresses these concerns is at the end of these two (2) comments.

COMMENT #4: The St. Louis County Department of Public Health commented, it appears there is no definitive upper particle size limit. For practical purposes, this rule could now be used in a manner similar to how it was used prior to the state having a regulatory definition of particulate matter, at the discretion of the director.
COMMENT #5: Newman, Comley, and Ruth P.C. commented, the firm had previously resolved an issue of whether "bees wings" were considered fugitive particulate matter. Since the "bees wings" were greater than ten micrometers (10 $\mu$m) it was determined that they were not considered fugitive particulate matter.
RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the department will add an upper size limit to the definition of particulate matter in subsection (2)(F) of this rule because particles greater than one hundred micrometers (100 $\mu$m) are not defined as particulate matter.

COMMENT #6: Newman, Comley, and Ruth P.C. commented facilities constructed before November 30, 1990 and located within the city limits of any municipality should be exempt from this rule.
RESPONSE: Since the commenter did not provide justification for this exemption and the department is not able to justify this exemption, no changes were made to the rule text as a result of the comment.

Due to similar concerns expressed in the following two (2) comments, one (1) response that addresses these concerns is at the end of these two (2) comments.

COMMENT #7: Newman, Comley, and Ruth P.C. made a general comment that removing the word "shall" from a rule requirement could be interpreted that the requirement is no longer necessary. Regulations must be clear and concise as to the intent of the regulation. The department should review all instances of deleting the word "shall" and consider retaining it.
COMMENT #8: The St. Louis County Department of Public Health commented in support of Comment #7 because regulation requirements must be clear for enforcement purposes.
RESPONSE AND EXPLANATION OF CHANGE: The department appreciates these concerns over removal of the word "shall" in rule text. All 10 CSR 10 rules were reviewed in compliance with Executive Order 17-03 with the purpose of making rule requirements clear. Staff reviewed the executive order rulemakings and determined that, in certain instances, the removal of the word "shall" may be interpreted to suggest that a previously mandatory obligation had become discretionary. For this rulemaking, staff is revising the language in paragraphs (3)(A)1. and (3)(A)2. to retain the word "shall" in order to clarify the obligation for facilities.

**10 CSR 10-6.170 Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin**

(2) Definitions.

(F) Particulate matter—Any liquid or solid material, except uncombined water, that exists in a finely divided form with an aerodynamic diameter smaller than one hundred micrometers (100 $\mu$m).

(3) General Provisions.

(A) Restrictions to Limit Fugitive Particulate Matter Emissions.

1. No person shall cause or allow fugitive particulate matter emissions to—

A. Go beyond the premises of origin in such quantities that the particulate matter may be found on surfaces beyond the property line of origin due to the following activities:

(I) Handling, transporting, or storing of any material;

(II) Construction, repair, cleaning, or demolition of a building or its appurtenances;

(III) Construction or use of a road, driveway, or open area; or

(IV) Operation of a commercial or industrial facility; or

B. Remain visible in the ambient air beyond the property line of origin.

2. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director.

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### ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo 2016, the commission amends a rule as follows:

**10 CSR 10-6.220** Restriction of Emission of Visible Air Contaminants **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 1, 2018 (43 MoReg 2127-2129). No changes were made in the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received nine (9) comments on this rulemaking: seven (7) from the U.S. Environmental Protection Agency (EPA), one (1) from Newman, Comley, and Ruth P.C., and one (1) from St. Louis County Department of Public Health.

COMMENT #1: The EPA commented that, as previously commented, subsection (1)(A) which exempts internal combustion engines from 10 CSR 10-6.220 should be revised to only exempt internal combustion engines firing natural gas or other clean gaseous fuels to ensure that the department's State Implementation Plan (SIP) submission meets the requirements of sections 110(l) and 193 of the Clean Air Act.
RESPONSE: The exemption in subsection (1)(A), established in the November 2016 SIP submittal is not proposed for change at this time. The current approved SIP rule text includes an exemption for all internal combustion engines throughout most of the state. Amending subsection (1)(A) to only exempt internal combustion engines firing gaseous fuels would effectively add new requirements for owners of emission units that were never regulated under this rule. No changes were made to the rule text as a result of this comment.

COMMENT #2: The EPA commented that, as previously commented, they recommend that the department consider exempting Portland cement kilns from the rule altogether in section (1) as it has for Industrial, Commercial, and Institutional Boilers and Process Heaters subject to 40 CFR 63, Subparts DDDDD, JJJJJ, and UUUUU, if all the Portland cement plants in Missouri are subject to 40 CFR 63, Subparts LLL and EEE.
RESPONSE: The department has included an exemption for emission units subject to equivalent or stricter emission limits under 10 CSR 10-6.075. Under 10 CSR 10-6.075, 40 CFR 63 Subparts LLL and EEE are incorporated by reference and those emission units determined to have stricter requirements under these federal subparts will be exempt from 10 CSR 10-6.220. No changes were made to the rule text as a result of this comment.

Due to similar concerns expressed in the following three (3) comments, one (1) response that addresses these concerns is at the end of these three (3) comments.

COMMENT #3: The EPA commented that, as previously commented, they recommend that the department further explain its rationale in the regulatory impact report (RIR) why the visible emission limits in section (3)(A) seem to still apply to Portland cement kilns even though the monitoring requirement has been removed. In some cases, Portland cement operations have had difficulty with detached plumes or secondary formation of particulate matter away from the stack which are often not detectable by a continuous opacity monitoring system (COMS) or continuous monitoring system at the stack location, so it's possible the department may be retaining the numerical Portland cement kiln opacity limits at section (3)(A) for these types of instances. The public can only assume that this is so the state can

still act on opacity emissions exceeding the numerical thresholds which are otherwise met at the stack and verified through the continuous monitoring required by 40 CFR 63, subparts LLL and EEE.
COMMENT #4: The EPA commented that, as previously commented, they recommend that the department revise the RIR language to reference the correct Code of Federal Regulations citation as follows, "strict particulate matter (PM) limits in 40 CPR 60 63 Subparts LLL and EEE." The Response to Comment document states that the department intends to modify the RIR but the version of the RIR on the department's Regulatory Action Tracking System webpage does not contain the revisions.
COMMENT #5: The EPA commented that, as previously commented, they recommend that the department revise the RIR language to reference the correct term as follows, "required to monitor PM emissions using PM continuous opacity emissions monitoring systems (CEMS) which are more sensitive than COMS." The Response to Comment document states that the department intends to modify the RIR but the version of the RIR on the department's Regulatory Action Tracking System webpage does not contain the revisions.
RESPONSE: The department has updated the RIR and posted it on the department's Regulatory Action Tracking System webpage. No changes were made to the rule text as a result of this comment.

COMMENT #6: The EPA commented that, as previously commented, there are references in this rule to 10 CSR 10-6.030(22); however, section (22) does not exist in the state's 10 CSR 10-6.030 Sampling Methods. The EPA would not act on this SIP submission until 10 CSR 10-6.030 was also submitted to the EPA.
RESPONSE: The department is currently in the process of amending rule 10 CSR 10-6.030 Sampling Methods for Air Pollution Sources and plans to submit this rule for inclusion into the SIP before, or concurrently with, the submittal to EPA of amendments to 10 CSR 10-6.220. No changes were made to the rule text as a result of this comment.

COMMENT #7: The EPA commented that, as previously commented, they encourage the department to assess the need for adding a reference to 10 CSR 10-6.030(22) in sections (2), (3), and (5) of this rule because those sections already specify which 40 CFR 60 requirements apply. The EPA states, it may be unnecessary to divert the public to another state regulation, which then incorporates a federal regulation by reference, and provides no additional clarity, when the requirement is already specified in sections (2), (3), and (5) of this rule.
RESPONSE: The department appreciates this comment and for all air rules found in 10 CSR 10-Chapters 1–6, where stack testing methods or guidance documents are mentioned more than once, a reference to rule 10 CSR 10-6.030 reduces cumbersome rule text required under section 536.031.4., RSMo. The purpose of 10 CSR 10-6.030 is to manage the incorporations by reference of various test methods under one (1) rule where publication dates and addresses can easily be updated under a single rulemaking, as necessary. No changes were made to the rule text as a result of this comment.

Due to similar concerns expressed in the following two (2) comments, one (1) response that addresses these concerns is at the end of these two (2) comments.

COMMENT #8: Newman, Comley, and Ruth P.C. made a general comment that removing the word "shall" from a rule requirement could be interpreted that the requirement is no longer necessary. Regulations must be clear and concise as to the intent of the regulation. The department should review all instances of deleting the word "shall" and consider retaining it.
COMMENT #9: The St. Louis County Department of Public Health commented in support of Comment #8 because regulation requirements must be clear for enforcement purposes.
RESPONSE: The department appreciates these concerns over removal of the word "shall" in rule text. All 10 CSR 10 rules were reviewed in compliance with Executive Order 17-03 with the purpose of making rule requirements clear. Staff reviewed the executive order rulemakings and determined that, in certain instances, the removal of the word "shall" may be interpreted to suggest that a previously mandatory obligation had become discretionary. For this rulemaking, staff re-reviewed the use of the word "shall" and, since removal of the word "shall" did not change the regulatory requirement, no changes were made to the rule text as a result of these comments.

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### ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo 2016, the commission amends a rule as follows:

**10 CSR 10-6.261** Control of Sulfur Dioxide Emissions **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 1, 2018 (43 MoReg 2129-2134). No changes were made in the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received a total of four (4) comments from three (3) sources: the U.S. Environmental Protection Agency (EPA); Newman, Comley, and Ruth P.C.; and the St. Louis County Department of Public Health.

COMMENT #1: The EPA commented that, based on the information provided in the Regulatory Impact Report (RIR) response to comment document, the RIR, and the Rulemaking Report; EPA is concerned with the proposed rule text removing "Table I–Sources with SO2 emission limits necessary to address the 2010 1-hour SO2 National Ambient Air Quality Standard" from subsection (3)(A) and removing the requirement in subsection (3)(D) for owners or operators of sources in Jackson and Jefferson Counties to only accept delivery of only ultra-low sulfur distillate fuel oil for use in unit(s) fueled by diesel, No. 1 fuel oil, and/or No. 2 fuel oil by January 1, 2017.

The RIR response to comment document indicates that the department intends to submit a redesignation request to EPA for the Jackson County one (1)-hour Sulfur Dioxide (SO2) nonattainment area. To redesignate an area to attainment of a National Ambient Air Quality Standard (NAAQS), the department must demonstrate to EPA that the area is attaining the standard based on permanent and enforceable conditions. Provisions in Table I were specifically listed in the department's 2015 Nonattainment Area (NAA) Plan for the Jackson County 2010 one (1)-hr SO2 nonattainment area as necessary for attainment of the NAAQS. By removing the limits from the SO2 rule, and not describing why the specific limit is no longer necessary or providing a citation to another document where the emission limit is duplicated (and both permanent and enforceable), the removal of Table I from 10 CSR 10-6.261, and the ultra-low sulfur distillate fuel oil requirement, introduces uncertainty as to how this will ensure protection of the NAAQS. For EPA to redesignate the area to attainment, the department would need to provide additional explanation for why the limits originally identified in Table I, and the requirement

to burn ultra-low sulfur fuel in applicable units, are no longer necessary.
RESPONSE: The department evaluated the need for the limits in Table 1 of the rule and the requirements for ultra-low sulfur distillate fuel. The department determined that these requirements are redundant and not necessary for SO2 control requirements in the Jefferson and Jackson County nonattainment areas. Since the department has withdrawn the attainment demonstration plans for both the Jefferson and Jackson County SO2 nonattainment areas, there are no approved or outstanding state implementation plan (SIP) revisions relying on any emission reductions from this rule. In addition, the only liquid fuel commercially available to sources located in the nonattainment areas is ultra-low sulfur distillate fuel. Therefore, the requirements provided no true emission benefit, and was never necessary for the area to attain the standard. Clean Air Act Section 107(d)(3)(E)(iii) states that the administrator may only redesignate an area to attainment if it determines that the improvement in air quality is due to permanent and enforceable reductions in emissions. The reductions in emissions that led to the improvement in air quality in both of the SO2 nonattainment areas, were the reductions at the Veolia and Doe Run Herculaneum facilities. These reductions are already permanent and enforceable through other mechanisms than this rule. Therefore, the requirement for redesignation is already satisfied for both of the state's SO2 nonattainment areas. No changes were made to the rule text as a result of this comment.

COMMENT #2: EPA commented that, as previously commented, item 3 in the RIR discusses "the environmental and economic costs and benefits of the proposed rulemaking". However, there is no discussion on the environmental costs or benefits of the proposal. As an example, how does removing the provision in subsection (3)(D) that requires sources in Jackson and Jefferson counties to only use ultra-low sulfur distillate fuel oil impact attainment and maintenance of the 2010 SO2 NAAQS? Does removing this fuel restriction impact the environment or negatively affect SIPs that the department has submitted for approval? At a minimum, the department should explain how the change in the limit of liquid fuel sulfur content in Jackson County from fifteen (15) parts per million (ppm) to 35,249 ppm (pre-1968 units) or 8,812 ppm (post-1968 units) would not impact the Jackson County NAA's ability to attain and or maintain the NAAQS.
RESPONSE: As stated in the response to Comment 1, none of the stationary diesel-burning sources in or around the Jackson County nonattainment area were burning any diesel fuel except for ultra-low sulfur distillate fuel and that no other diesel fuel was commercially available to them. No true emission reductions were achieved when the requirement was originally established. Therefore, the requirement is redundant, unnecessary, and provides no additional air quality benefit. Nothing in the SIP relies upon actual emission reductions from this requirement in order to demonstrate attainment or maintenance of the NAAQS. Removing the requirement helps achieve the goal of Executive Order 17-03,which is to remove regulatory restrictions that are not necessary for the health, safety, or welfare of Missouri residents. No changes were made to the rule text as a result of this comment.

Due to similar concerns expressed in the following two (2) comments, one (1) response that addresses these concerns is at the end of these two (2) comments.

COMMENT #3: Newman, Comley, and Ruth P.C. made a general comment that removing the word "shall" from a rule requirement could be interpreted that the requirement is no longer necessary. Regulations must be clear and concise as to the intent of the regulation. The department should review all instances of deleting the word "shall" and consider retaining it.
COMMENT #4: The St. Louis County Department of Public Health commented in support of Comment #2 because regulation requirements must be clear for enforcement purposes.
RESPONSE: The department appreciates these concerns over removal of the word "shall" in rule text. All 10 CSR 10 rules were reviewed in compliance with Executive Order 17-03 with the purpose of making rule requirements clear. Staff reviewed the executive order rulemakings and determined that, in certain instances, the removal of the word "shall" may be interpreted to suggest that a previously mandatory obligation had become discretionary. For this rulemaking, staff re-reviewed the use of the word "shall" and, since removal of the word "shall" did not change the regulatory requirement, no changes were made to the rule text as a result of these comments.

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### ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo 2016, the commission amends a rule as follows:

10 CSR 10-6.330 is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 1, 2018 (43 MoReg 2134-2137). Those sections with changes are reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received four (4) comments on this proposed amendment: one (1) from Newman, Comley, and Ruth P.C., one (1) from St. Louis County Department of Public Health, and two (2) from department staff.

Due to similar concerns expressed in the following two (2) comments, one (1) response that addresses these concerns is at the end of these two (2) comments.

COMMENT #1: Newman, Comley, and Ruth P.C. made a general comment that removing the word "shall" from a rule requirement could be interpreted that the requirement is no longer necessary. Regulations must be clear and concise as to the intent of the regulation. The department should review all instances of deleting the word "shall" and consider retaining it.
COMMENT #2: The St. Louis County Department of Public Health commented in support of Comment #3 because regulation requirements must be clear for enforcement purposes.
RESPONSE: The department appreciates these concerns over removal of the word "shall" in rule text. All 10 CSR 10 rules were reviewed in compliance with Executive Order 17-03 with the purpose of making rule requirements clear. Staff reviewed the executive order rulemakings and determined that, in certain instances, the removal of the word "shall" may be interpreted to suggest that a previously mandatory obligation had become discretionary. For this rulemaking, staff re-reviewed the use of the word "shall" and, since removal of the word "shall" did not change the regulatory requirement, no changes were made to the rule text as a result of these comments.

COMMENT #3: Department staff commented that there is a need to define the terms "retorts" and "furnaces" under (2)(C) and why they are not subject to this rule. For example, the emissions from a kiln are from the pyrolysis of the wood and it should not matter how the kiln is lit (or started) by a direct or indirect source.

RESPONSE: This request is beyond the scope of the rulemaking at this time. The department plans to investigate the potential need to define these terms, and if it is determined to be appropriate the department will add definitions for these terms in a future rulemaking. No changes were made as a result of this rulemaking.

COMMENT #4: Department staff commented that the definition of "facility" should be changed to "installation" per guidelines issued by EPA. This definition should also include the Standard Industrial Classification code as well as the location and ownership relationship.
RESPONSE AND EXPLANATION OF CHANGE: As a result of this comment, the department will not change the term "installation" to "facility" as proposed and will add a definition for the term "installation."

**10 CSR 10-6.330 Restriction of Emissions From Batch-Type Charcoal Kilns**

(2) Definitions.

(F) Fill capacity—The maximum amount of wood that can be properly loaded into a charcoal kiln prior to the burn cycle.

(G) Installation—All source operations including activities that result in fugitive emissions, that belong to the same industrial grouping (that have the same two (2)-digit code as described in the Standard Industrial Classification Manual, 1987), and any marine vessels while docked at the installation, located on one (1) or more contiguous or adjacent properties and under the control of the same person (or persons under common control).

(3) General Provisions.

(D) The owner or operator of charcoal kilns at charcoal manufacturing installations shall develop, submit for department approval, and establish a standard operating procedures manual for each charcoal manufacturing installation. At a minimum, this manual shall describe—

1. Safe charcoal kiln operation;
2. Bundle stacking (including adequate platform of logs to enhance combustion);
3. Use of properly seasoned wood (cover mixing of wood species, if applicable);
4. Control of fugitive emissions from each charcoal kiln (e.g. "mudding" cracks and doors) and each emission control device; and
5. Methods of reporting and recordkeeping under section (4) of this rule.

(4) Reporting and Record Keeping.

(A) Owners or operators of all charcoal kilns shall maintain a file on each active charcoal kiln with the following information for a minimum of five (5) years from the date the data was collected:

1. Average annual production (tons of charcoal per charcoal manufacturing installation per year divided by the number of charcoal kilns at the charcoal manufacturing installation);
2. Start-up time (hour and minute) for each burn cycle;
3. Emission control device temperature (in degrees Fahrenheit) throughout each burn cycle shall be measured at a point in the emission control device where gas residence time is no less than the applicable residence time under paragraph (3)(B)4. of this rule;
4. The emission control device temperature shall be continuously displayed and recorded by a continuous recording device;
5. Daily log for each charcoal kiln control system that includes start-up time(s), cool-down time(s), re-light time(s), and inspections performed (e.g. burn chamber);
6. Monthly log for each charcoal kiln control system that includes fuel usage and, where more than one (1) type of fuel is used, fuel types and times of usage;
7. Malfunction log for each charcoal manufacturing installation that includes a description of each malfunction cause, duration, and actions taken to remedy the malfunction; and
8. Performance test reports for all emission control devices tested.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 10—Air Conservation Commission
## Chapter 6—Air Quality Standards, Definitions, Sampling and Reference Methods and Air Pollution Control Regulations for the Entire State of Missouri

### ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo 2016, the commission amends a rule as follows:

**10 CSR 10-6.372** Cross-State Air Pollution Rule $NO_x$ Annual Trading Program **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 1, 2018 (43 MoReg 2137-2144). No changes were made in the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received a total of two (2) comments on this rulemaking. One (1) comment was from Newman, Comley, and Ruth, and one (1) comment was from the St. Louis County Air Pollution Control Program.

Due to similar concerns expressed in the following two (2) comments, one (1) response that addresses these concerns is at the end of these two (2) comments.

COMMENT #1: Newman, Comley, and Ruth P.C. made a general comment that removing the word "shall" from a rule requirement could be interpreted that the requirement is no longer necessary. Regulations must be clear and concise as to the intent of the regulation. The department should review all instances of deleting the word "shall" and consider retaining it.
COMMENT #2: The St. Louis County Department of Public Health commented in support of Comment #1 because regulation requirements must be clear for enforcement purposes.
RESPONSE: The department appreciates these concerns over removal of the word "shall" in rule text. All 10 CSR 10 rules were reviewed in compliance with Executive Order 17-03 with the purpose of making rule requirements clear. Staff reviewed the executive order rulemakings and determined that, in certain instances, the removal of the word "shall" may be interpreted to suggest that a previously mandatory obligation had become discretionary. For this rulemaking, staff re-reviewed the use of the word "shall" and, since removal of the word "shall" did not change the regulatory requirement, no changes were made to the rule text as a result of these comments.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 10—Air Conservation Commission
## Chapter 6—Air Quality Standards, Definitions, Sampling and Reference Methods and Air Pollution Control Regulations for the Entire State of Missouri

### ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo 2016, the commission amends a rule as follows:

**10 CSR 10-6.374** Cross-State Air Pollution Rule $NO_x$ Ozone Season Group 2 Trading Program **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 1, 2018 (43 MoReg 2144-2151). No changes were made in the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received a total of three (3) comments on this rulemaking. One (1) comment on this rulemaking was from the U.S. Environmental Protection Agency (EPA), one (1) comment was from Newman, Comley, and Ruth P.C., and one (1) comment was from the St. Louis County Department of Public Health.

COMMENT #1: The EPA commented that, as previously commented, the Regulatory Impact Report (RIR) and the Rulemaking Report describing the department's proposed action to incorporate the Cross State Air Pollution Rule (CSAPR) Federal Implementation Plan (FIP) into the State Implementation Plan by reference included some inconsistencies with the FIP methodology for allocating CSAPR nitrogen oxide Ozone Season Group 2 allowances. Specifically, EPA had concern with the Rulemaking Report listing three (3) sections (40 CFR 97.811(a), 40 CFR 97.811(b)(l), and 40 CFR 97.812(a)) that should not be included in the list of exclusions and the RIR language does not explain the differences between allocation methodologies in the proposed rule text for ozone season program compliance versus annual program compliance. The Response to Comment document states that the department "plans to update question number three (3) of the Rulemaking Report to remove the references to "40 CFR 97.811(a), 40 CFR 97.811(b)(l), and 40 CFR 97.812(a)" and "provide a description of the difference between the alternative allocation methodologies (alternative approaches) in item 7. of the RIR so that it is clear what they are and which state CSAPR rules they affect." However, this revised language was not available in the documents posted on the department Regulatory Action Tracking System webpage for review.
RESPONSE: As a result of this comment, the department updated question number three (3) of the Rulemaking Report to remove the references to 40 CFR 97.811(a), 40 CFR 97.811(b)(1), and 40 CFR 97.812(a) since the department will not be administering the CSAPR Ozone Season Group 2 trading program. In response to EPA's comment concerning the RIR, the department has updated and provided a description of the difference between the alternative allocation methodologies (alternative approaches) in question 7 of the RIR so that it is clear what they are and which state CSAPR rules they affect. The updates to the RIR will be included with the rule amendment package.

Due to similar concerns expressed in the following two (2) comments, one (1) response that addresses these concerns is at the end of these two (2) comments.

COMMENT #2: Newman, Comley, and Ruth P.C. made a general comment that removing the word "shall" from a rule requirement could be interpreted that the requirement is no longer necessary. Regulations must be clear and concise as to the intent of the regulation. The department should review all instances of deleting the word "shall" and consider retaining it.
COMMENT #3: The St. Louis County Department of Public Health commented in support of Comment #4 because regulation requirements must be clear for enforcement purposes.
RESPONSE: The department appreciates these concerns over removal of the word "shall" in rule text. All 10 CSR 10 rules were reviewed in compliance with Executive Order 17-03 with the purpose of making rule requirements clear. Staff reviewed the executive order rulemakings and determined that, in certain instances, the removal of the word "shall" may be interpreted to suggest that a previously mandatory obligation had become discretionary. For this rulemaking, staff re-reviewed the use of the word "shall" and, since removal of the word "shall" did not change the regulatory requirement, no changes were made to the rule text as a result of these comments.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 10—Air Conservation Commission
## Chapter 6—Air Quality Standards, Definitions, Sampling and Reference Methods and Air Pollution Control Regulations for the Entire State of Missouri

### ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation Commission under section 643.050, RSMo 2016, the commission amends a rule as follows:

**10 CSR 10-6.376** Cross-State Air Pollution Rule Annual $SO_2$ Group 1 Trading Program **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 1, 2018 (43 MoReg 2151-2158). No changes were made in the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received a total of two (2) comments on this rulemaking. One (1) comment was from Newman, Comley, and Ruth, and one (1) comment was from the St. Louis County Air Pollution Control Program.

Due to similar concerns expressed in the following two (2) comments, one (1) response that addresses these concerns is at the end of these two (2) comments.

COMMENT #1: Newman, Comley, and Ruth P.C. made a general comment that removing the word "shall" from a rule requirement could be interpreted that the requirement is no longer necessary. Regulations must be clear and concise as to the intent of the regulation. The department should review all instances of deleting the word "shall" and consider retaining it.
COMMENT #2: The St. Louis County Department of Public Health commented in support of Comment #1 because regulation requirements must be clear for enforcement purposes.
RESPONSE: The department appreciates these concerns over removal of the word "shall" in rule text. All 10 CSR 10 rules were reviewed in compliance with Executive Order 17-03 with the purpose of making rule requirements clear. Staff reviewed the executive order rulemakings and determined that, in certain instances, the removal of the word "shall" may be interpreted to suggest that a previously mandatory obligation had become discretionary. For this rulemaking, staff re-reviewed the use of the word "shall" and, since removal of the word "shall" did not change the regulatory requirement, no changes were made to the rule text as a result of these comments.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 10—Air Conservation Commission
## Chapter 6—Air Quality Standards, Definitions, Sampling and Reference Methods and Air Pollution Control Regulations for the Entire State of Missouri

### ORDER OF RULEMAKING

By the authority vested in the Missouri Air Conservation

Commission under section 643.050, RSMo 2016, the commission amends a rule as follows:

**10 CSR 10-6.390** Control of $NO_x$ Emissions From Large Stationary Internal Combustion Engines **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on August 1, 2018 (43 MoReg 2158-2161). No changes were made in the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received a total of five (5) comments on this rulemaking. Three (3) comments on this rulemaking were from the U.S. Environmental Protection Agency (EPA), one (1) comment was from Newman, Comley, and Ruth, and one (1) comment was from the St. Louis County Air Pollution Control Program.

COMMENT #1: The EPA previously commented that the department will need to submit a demonstration showing how the added exemption for spark ignition engines to the exemption provided at paragraph (1)(B)2., to the State Implementation Plan (SIP) submission meets the requirements of section 110(l) and 193 also known as the "anti-backsliding" provisions of the Clean Air Act (CAA). The Response to Comment document indicates that a demonstration was posted to the department's Regulatory Action Tracking System webpage. While EPA would agree that a twenty-five (25) ton per year nitrogen oxide source is unlikely to have a significant impact on air quality, the demonstration does not discuss air quality near the exempt sources. The EPA recommends that the department add rationale why this SIP change would not impact attainment of standards near the exempt source to ensure that the SIP meets the anti-backsliding requirements of the CAA section 110(l).
RESPONSE: The department will revise the anti-backsliding demonstration to add information supporting that the new exemption would not substantially impact National Ambient Air Quality Standards near the exempt source, and include the revised demonstration with the state implementation plan revision request. No changes were made to rule text as a result of this comment.

COMMENT #2: The EPA commented that, as previously commented, there are three (3) references to the regulatory citation 10 CSR 10-6.030(22); however, section (22) does not exist in the SIP approved 10 CSR 10-6.030 Sampling Methods. The EPA understands, from review of the department's Regulatory Action Tracking System webpage, that the department is in the process of revising 10 CSR 10-6.030 Sampling Methods and that those potential rule changes were made available for public comment from May 15, 2018, to August 02, 2018. As such, EPA would not act on this submission until 10 CSR 10-6.030 was also submitted to EPA.
RESPONSE: The department is currently in the process of amending rule 10 CSR 10-6.030 Sampling Methods for Air Pollution Sources and plans to submit this rule for inclusion into the SIP before, or concurrently with, the submittal to EPA of amendments to 10 CSR 10-6.390. No changes were made to rule text as a result of this comment.

COMMENT #3: The EPA commented that, as previously commented, EPA encourages the department to assess the need for adding a reference to 10 CSR 10-6.030(22) to sections (4) and (5) of this rule. These sections already specify that the requirements are for a Continuous Emissions Monitoring Station installed to meet the requirements of 40 CFR Part 60, Appendix B and F. The proposed rule text language for the potential revisions to 10 CSR 10-6.030, adding section (22), just incorporates 40 CFR Part 60 by reference. It may be unnecessary to divert the public to another state regulation, which then incorporates a federal regulation by reference, and provides no additional clarity, when the requirement is already specified in sections (4) and (5).
RESPONSE: The department appreciates this comment and for all air rules found in 10 CSR 10-Chapters 1–6, where stack testing methods or guidance documents are mentioned more than once, a reference to rule 10 CSR 10-6.030 reduces cumbersome rule text required under section 536.031.4., RSMo. The purpose of 10 CSR 10-6.030 is to manage the incorporations by reference of various test methods under one (1) rule where publication dates and addresses can easily be updated under a single rulemaking, as necessary. No changes were made to the rule text as a result of this comment.

Due to similar concerns expressed in the following two (2) comments, one (1) response that addresses these concerns is at the end of these two (2) comments.

COMMENT #4: Newman, Comley, and Ruth P.C. made a general comment that removing the word "shall" from a rule requirement could be interpreted that the requirement is no longer necessary. Regulations must be clear and concise as to the intent of the regulation. The department should review all instances of deleting the word "shall" and consider retaining it.
COMMENT #5: The St. Louis County Department of Public Health commented in support of Comment #4 because regulation requirements must be clear for enforcement purposes.
RESPONSE: The department appreciates these concerns over removal of the word "shall" in rule text. All 10 CSR 10 rules were reviewed in compliance with Executive Order 17-03 with the purpose of making rule requirements clear. Staff reviewed the executive order rulemakings and determined that, in certain instances, the removal of the word "shall" may be interpreted to suggest that a previously mandatory obligation had become discretionary. For this rulemaking, staff re-reviewed the use of the word "shall" and, since removal of the word "shall" did not change the regulatory requirement, no changes were made to the rule text as a result of these comments.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 25—Hazardous Waste Management Commission
## Chapter 2—Commission Procedures

### ORDER OF RULEMAKING

By the authority vested in the Hazardous Waste Management Commission under sections 260.365, 260.370, 260.400, and 260.437, RSMo 2016, the commission hereby amends a rule as follows:

10 CSR 25-2.010 is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on July 16, 2018 (43 MoReg 1759). Sections with changes are reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held September 13, 2018, and the public comment period ended September 20, 2018. At the public hearing the Department of Natural Resources testified that the proposed amendment would remove unnecessary rule language and make a minor adjustment to the format of the rule. There was no other testimony on this rule at the hearing.

COMMENT #1: Since proposal of the rule amendment, Department staff determined that the proposed amendment may be interpreted to

suggest that a previously mandatory Department obligation had become discretionary. The proposed amendment would modify the language of that requirement from "shall" to "will". Because those terms may have different legal effect, the change may be misinterpreted.
RESPONSE AND EXPLANATION OF CHANGE: The Department is revising the language in one location in the rule in order to retain the word "shall", which will clarify the Department's obligation. The revised language is included in the Order of Rulemaking below.

**10 CSR 25-2.010 Voting Procedures**

(5) If a quorum of commissioners is not present at the time of a public hearing published for rulemaking and it is necessary to delay the public hearing due to the lack of a quorum, the department shall issue a news release announcing the new time, date, and location of the public hearing and include in that news release the new submittal date for written public comments.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 25—Hazardous Waste Management Commission
## Chapter 2—Commission Procedures

### ORDER OF RULEMAKING

By the authority vested in the Hazardous Waste Management Commission under sections 260.370, 621.250, and 640.013, RSMo 2016, the commission hereby rescinds a rule as follows:

**10 CSR 25-2.020** Hazardous Waste Management Commission Appeals and Requests for Hearings **is rescinded**.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on July 16, 2018 (43 MoReg 1759). No changes were made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held September 13, 2018, and the public comment period ended September 20, 2018. At the public hearing the Department of Natural Resources testified that the proposed rescission would remove a rule that is outdated and almost entirely duplicates statutory language. There was no other testimony on this rule at the hearing and no comments were received.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 25—Hazardous Waste Management Commission
## Chapter 3—Hazardous Waste Management System: General

### ORDER OF RULEMAKING

By the authority vested in the Hazardous Waste Management Commission under sections 260.370 and 260.395, RSMo 2016, the commission hereby amends a rule as follows:

10 CSR 25-3.260 is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on July 16, 2018 (43 MoReg 1759–1761). Those sections with changes are reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held September 13, 2018, and the public comment period ended September 20, 2018. At the public hearing the Department of Natural Resources testified that the proposed amendment would reduce the burden on the regulated community in Missouri by removing outdated requirements, unnecessary restrictive words, and duplicative rule language. There was no other testimony on this rule at the hearing.

COMMENT #1: During the public comment period, the department identified some editorial changes that need to be made to the final rule language. In 10 CSR 25-3.260(1)(A)16., there should be closing quotation marks after "10 CSR 25-11.279".
RESPONSE AND EXPLANATION OF CHANGE: The department agrees with the comment and has proposed changes to this subsection of the rule in this Order of Rulemaking. The revised language for this subsection is below.

COMMENT #2: During the public comment period, the department identified some editorial changes that need to be made to the final rule language. In 10 CSR 25-3.260(1)(A)18. and 19., there should be closing quotation marks after "RSMo".
RESPONSE AND EXPLANATION OF CHANGE: The department agrees with the comment and has proposed changes to this subsection of the rule in this Order of Rulemaking. The revised language for this subsection is below.

COMMENT #3: During the public comment period, the department identified some editorial changes that need to be made to the final rule language. In 10 CSR 25-3.260(1)(A)23., instead of the word "are", the word "is" should be used for consistency.
RESPONSE AND EXPLANATION OF CHANGE: The department agrees with the comment and has proposed changes to this subsection of the rule in this Order of Rulemaking. The revised language for this subsection is below.

COMMENT #4: During the public comment period, the department identified some editorial changes that need to be made to the final rule language. In 10 CSR 25-3.260(3)(I)1., the word "facility" appears twice and one of them needs to be removed.
RESPONSE AND EXPLANATION OF CHANGE: The department agrees with the comment and has proposed changes to this subsection of the rule in this Order of Rulemaking. The revised language for this subsection is below.

**10 CSR 25-3.260 Definitions, Modifications to Incorporations and Confidential Business Information**

(1) The regulations set forth in 40 CFR part 260, July 1, 2013, as published by the Office of the Federal Register, National Archives and Records Administration, Superintendent of Documents, Pittsburgh, PA 15250-7954, and the changes made at 78 FR 0, July 31, 2013, are incorporated by reference, except for the changes made at 70 FR 53453, September 8, 2005, subject to the following additions, modifications, substitutions, or deletions. This rule does not incorporate any subsequent amendments or additions.

(A) Except where otherwise noted in sections (2) and (3) of this rule or elsewhere in 10 CSR 25, any federal agency, administrator, regulation, or statute that is referenced in 40 CFR parts 260–270, 273, and 279, and incorporated by reference in 10 CSR 25, shall be deleted and in its place add the comparable state department, director, rule, or statute. Where conflicting rules exist in 10 CSR 25, the more stringent rules control.

1. "Director" is substituted for "Administrator" or "Regional Administrator" except where those terms are defined in 40 CFR 260.10 incorporated in this rule and where otherwise indicated in 10 CSR 25.

2. "Missouri Department of Natural Resources" is substituted for "EPA," "U.S. EPA," or "U.S. Environmental Protection Agency" except where those terms appear in definitions in 40 CFR 260.10 incorporated in this rule and where otherwise indicated in 10 CSR 25.

3. "Section 260.395.15, RSMo," is substituted for "Section 3005(e) of RCRA."

4. "Sections 260.375(9), 260.380.1(9), 260.385(7), and 260.390(7), RSMo," is substituted for "Section 3007 of RCRA."

5. "Sections 260.410 and 260.425, RSMo," is substituted for "Section 3008 of RCRA."

6. "10 CSR 25-3.260" is substituted for any reference to 40 CFR part 260.

7. "10 CSR 25-4.261" is substituted for any reference to 40 CFR part 261.

8. "10 CSR 25-5.262" is substituted for any reference to 40 CFR part 262.

9. "10 CSR 25-6.263" is substituted for any reference to 40 CFR part 263.

10. "10 CSR 25-7.264" is substituted for any reference to 40 CFR part 264.

11. "10 CSR 25-7.265" is substituted for any reference to 40 CFR part 265.

12. "10 CSR 25-7.266 is substituted for any reference to 40 CFR part 266.

13. "10 CSR 25-7.268" is substituted for any reference to 40 CFR part 268.

14. "10 CSR 25-7.270" is substituted for any reference to 40 CFR part 270.

15. "10 CSR 25-8.124" is substituted for any reference to 40 CFR part 124.

16. "10 CSR 25-11.279" is substituted for any reference to 40 CFR part 279.

17. "10 CSR 25-16.273" is substituted for any reference to 40 CFR part 273.

18. "Sections 260.350–260.434, RSMo" is substituted for "Subtitle C of RCRA Act," or "RCRA," except where those terms are defined in 40 CFR 260.10, incorporated in this rule.

19. "Section 260.380.1(1), RSMo" is substituted for "Section 3010 of RCRA."

20. "Section 260.420, RSMo" is substituted for "Section 7003 of RCRA."

21. "Waste within the meaning of section 260.360(21), RSMo," is substituted for "solid waste within the meaning of section 1004(27) of RCRA." Residual materials specified as wastes under section 260.360(21), RSMo, means any spent materials, sludges, by-products, commercial chemical products, or scrap metal that are solid wastes under 40 CFR 261.2, as incorporated in 10 CSR 25-4.261.

22. "Section 260.360(9), RSMo," is substituted for "Section 1004(5) of RCRA."

23. "Chapter 610, RSMo, sections 260.430 and 260.550, RSMo, 10 CSR 25-3.260(1)(B), and 10 CSR 25-7.270(2)(B)" is substituted for any reference to the Federal Freedom of Information Act (5 U.S.C. 552(a) and (b)), 40 CFR part 2, or Section 3007(b) of RCRA.

24. All quantities of solid waste which are defined as hazardous waste pursuant to 10 CSR 25-4 are hazardous waste and are regulated under sections 260.350–260.434, RSMo, and 10 CSR 25. A person shall manage all hazardous waste which is not subject to requirements in 10 CSR 25 in accordance with subsection 260.380.3, RSMo. When a person accumulates one hundred kilograms (100 kg) of nonacute hazardous waste or one kilogram (1 kg) of acutely hazardous waste or the aggregate of one hundred kilograms (100 kg) of acute and nonacute hazardous waste, whichever first occurs, that person is subject to the provisions in 10 CSR 25. This provision is in addition to the calendar-month generation provisions in 40 CFR 261.5 which are incorporated by reference and modified in 10 CSR 25-4.261(2)(A).

25. The term variance in 10 CSR 25 means an action of the commission pursuant to section 260.405, RSMo. In any case where a federal rule that is incorporated by reference in 10 CSR 25 uses the term variance but the case-by-case decision or action of the department or commission does not meet the description of a variance pursuant to section 260.405, RSMo, the decision or action will be considered an exception or exemption based on the conditions set forth in the federal regulation incorporated by reference or the omission from regulation.

26. The rules of grammatical construction in 40 CFR 260.3 incorporated by reference in this rule also apply to the incorporated text of 40 CFR parts 266 and 270 and to 10 CSR 25.

(3) Missouri Specific Definitions. Definitions of terms used in 10 CSR 25. This section sets forth definitions which modify or add to those definitions in 40 CFR parts 60, 260–270, 273, and 279 and 49 CFR parts 40, 171–180, 383, 387, and 390–397.

(I) Definitions beginning with the letter I.

1. Identification number means the unique code assigned to each hazardous waste, each hazardous waste generator, transporter, or facility pursuant to these rules.

2. Attenuation means any physical, chemical, or biological reaction, or a combination of both, transformation occurring in the zone of aeration or zone of saturation that brings about a temporary or permanent decrease in the maximum concentration or total quantity of an applied chemical or biological constituent in a fixed time or distance traveled.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 25—Hazardous Waste Management Commission
## Chapter 4—Methods for Identifying Hazardous Waste

### ORDER OF RULEMAKING

By the authority vested in the Hazardous Waste Management Commission under section 260.370 RSMo 2016, the commission hereby amends a rule as follows:

10 CSR 25-4.261 is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on July 16, 2018 (43 MoReg 1761–1764). Those sections with changes are reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held September 13, 2018, and the public comment period ended September 20, 2018. At the public hearing the Department of Natural Resources testified that the proposed amendment would reduce the burden on the regulated community in Missouri by removing outdated requirements, unnecessary restrictive words, and duplicative rule language. There was no other testimony on this rule at the hearing.

COMMENT #1: During the public comment period, the department identified some editorial changes that need to be made to the final rule language. In 10 CSR 25-4.261(2)(A)15., there is an "and" remaining at the end before the word "(Reserved)" and this word should be removed.

RESPONSE AND EXPLANATION OF CHANGE: The department agrees with the comment and has proposed changes to this subsection of the rule in this Order of Rulemaking. The revised language is included below.

**10 CSR 25-4.261 Methods for Identifying Hazardous Waste**

(2) This section sets forth specific modifications of the regulations

incorporated in section (1) of this rule. A person subject to identifying a hazardous waste shall comply with this section as it modifies 40 CFR part 261 as incorporated in this rule. (Comment: This section has been organized in order that all Missouri additions, changes, or deletions to any subpart of the federal regulation are noted within the corresponding subsection of this section. For example, changes to 40 CFR part 261 subpart A will be located in subsection (2)(A) of this rule.)

(A) General. The following are changes to 40 CFR part 261 subpart A incorporated in this rule:

1. *(Reserved)*
2. *(Reserved)*
3. *(Reserved)*
4. *(Reserved)*
5. (*Reserved)*
6. *(Reserved)*
7. 40 CFR 261.4(a)(16) is not incorporated in this rule (Note: The paragraph at 40 CFR 261.4(a)(16) added by 63 FR 33823, June 19, 1998, is the paragraph not incorporated by 10 CSR 25-4.261(2)(A)9.);
8. *(Reserved)*
9. A generator shall submit the information in 40 CFR 261.4(e)(2)(v)(C) as incorporated in this rule to the department along with the Generator's Hazardous Waste Summary Report in 10 CSR 25-5.262(2)(D)1.;
10. The changes to 40 CFR 261.5, special requirements for hazardous waste generated by conditionally exempt small quantity generators, incorporated in this rule are as follows:

A. The modification set forth in 10 CSR 25-3.260(1)(A)24. applies in this rule in addition to other modifications set forth;

B. 40 CFR 261.5(g)(2) is not incorporated in this rule;

11. The substitution of terms in 10 CSR 25-3.260(1)(A) does not apply in 40 CFR 261.6(a)(3)(i), as incorporated in this rule. The state may not assume authority from the Environmental Protection Agency (EPA) to receive notifications of intent to export or to transmit this information to other countries through the Department of State or to transmit Acknowledgments of Consent to the exporter. This modification does not relieve the regulated person of the responsibility to comply with the Resource Conservation and Recovery Act (RCRA) or other pertinent export control laws and regulations issued by other agencies;
12. *(Reserved)*
13. *(Reserved)*
14. *(Reserved)*
15. *(Reserved)*
16. In accordance with section 260.432.5(2), RSMo, used cathode ray tubes (CRTs) may not be placed in a sanitary landfill, except as permitted by section 260.380.3, RSMo.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 25—Hazardous Waste Management Commission
## Chapter 5—Rules Applicable to Generators of Hazardous Waste

### ORDER OF RULEMAKING

By the authority vested in the Hazardous Waste Management Commission under section 260.370, RSMo 2016, the commission hereby amends a rule as follows:

10 CSR 25-5.262 is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on July 16, 2018 (43 MoReg 1765–1767). Those sections with changes are reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held September 13, 2018, and the public comment period ended September 20, 2018. At the public hearing the Department of Natural Resources testified that the proposed amendment would reduce the burden on the regulated community in Missouri by removing outdated requirements, unnecessary restrictive words, and duplicative rule language.

Mr. Kevin Perry, Assistant Director of REGFORM, testified on the rule and also submitted written comments. His written comments, received on September 20th, reiterated his testimony at the public hearing on September 13th.

Mr. David Shanks, from Boeing St. Louis, also testified at the hearing in support of REGFORM's comments and requested that two compliance options for satellite accumulation areas be retained.

COMMENT #1: Mr. Perry commented that members of his organization appreciate and value the two satellite accumulation area (SAA) options for compliance currently in the Missouri regulations, which allows generators to choose to comply with either the Missouri rule or the federal rule. Mr. Perry stated that having these two options is valuable and helps Missouri generators to do their work with fewer regulatory burdens, and that both options are safe and protective. He further commented that combining the two options within a single facility is also safe and protective of the environment and, in addition to keeping the current rule language, also requested a modification of the existing language that would allow generators to do so. He also requested removal of the requirement that generators notify the department of which option they have selected for their facility and suggested that facilities could maintain dated memos in their files indicating under which option each of their satellite accumulation areas is operating in their facility.

RESPONSE AND EXPLANATION OF CHANGE: The department agrees with this comment that both state and federal options should be retained because they are equally safe and protective and provide flexibility to generators to choose the option that is best suited to how hazardous waste is generated and accumulated within each satellite accumulation area. The revised language for section (2)(C)3. of the rule, which retains both the Missouri option and federal option for managing hazardous waste within satellite accumulation areas, is included in this Order of Rulemaking and reprinted below as it will appear in the Code of State Regulations.

COMMENT #2: Mr. Shanks also commented requesting that the two compliance options for satellite accumulation areas be retained. He stated that, depending on the waste generated by a particular manufacturing process, the Missouri approach based on a time limit of one year may be preferable to the total volume limited approach found in federal guidance, or vice versa. He provided examples of how they have implemented the current regulations at their facility and how having both options available would be beneficial. He stated that both approaches provide environmental safeguards and ensure that satellite accumulation areas are used as intended, for temporary accumulation of limited quantities. He requested that both methods should be available for Missouri generators and should be applied to those locations where they make the most sense, and could be described in an identifiable manner in the facility's hazardous waste generator files.

RESPONSE AND EXPLANATION OF CHANGE: The department agrees with this comment that both state and federal options should be retained because they are equally safe and protective and provide flexibility to generators to choose the option that is best suited to how hazardous waste is generated and accumulated within each satellite accumulation area. The revised language for section (2)(C)3. of the rule, which retains both the Missouri option and federal option for managing hazardous waste within satellite accumulation areas, is included in this Order of Rulemaking and reprinted below as it will appear in the Code of State Regulations.

COMMENT #3: Mr. Perry commented that the ability to label containers with a capacity of less than one gallon on a rack, locker, or other device is valuable to Missouri generators. This was universally supported during extensive stakeholder meetings and is currently in effect in 10 CSR 5-25.262(2)(C)1.A. It is inconsistent with the goals of Red Tape Reduction to remove this flexibility. To remove it is to impose a new restriction on Missouri generators. This provision has been in place for years without problems. Eliminating this option is not simpler for generators. We request that you take action to retain this provision. Do not rescind it as is currently proposed.
RESPONSE AND EXPLANATION OF CHANGE: The department agrees with this comment. Removing this language was an unintended consequence of the proposed changes to the labeling requirements, as part of which this language specific to smaller containers is included. The revised language for section (2)(C)1. of the rule, which reinstates this option for labeling smaller containers, is included in this Order of Rulemaking and reprinted below as it will appear in the Code of State Regulations.

COMMENT #4: Since proposal of the rule amendment, Department staff determined that, in some instances, removal of the word "shall" may be interpreted to suggest that a requirement is no longer mandatory and, in these instances, the word "shall" should be retained in order to avoid confusion.
RESPONSE AND EXPLANATION OF CHANGE: The Department is revising the language in one location in the rule in order to retain the word "shall", consistent with this guidance. The revised language is included in the Order of Rulemaking below.

**10 CSR 25-5.262 Standards Applicable to Generators of Hazardous Waste**

(2) A generator located in Missouri, except as conditionally exempted in accordance with 10 CSR 25-4.261, shall comply with the requirements of this section in addition to the requirements incorporated in section (1). (Comment: This section has been organized so that all Missouri additions, changes, or deletions to any subpart of the federal regulations are noted within the corresponding subsection of this section.)

(A) General. The following registration requirements are additional requirements to, or modifications of, the requirements specified in 40 CFR part 262 subpart A:

1. In lieu of 40 CFR 262.12(a) and (c), a generator located in Missouri comply with the following requirements:

A. A person generating in one (1) month or accumulating at any one (1) time the quantities of hazardous waste specified in 10 CSR 25-4.261 and a transporter who is subject to registration as a generator under 10 CSR 25-6.263 shall register and is subject to applicable rules under 10 CSR 25-3.260–10 CSR 25-9.020 and 10 CSR 25-12.010; and

B. Conditionally exempt generators may choose to register and obtain Environmental Protection Agency (EPA) and Missouri identification numbers, but in doing so will be subject to any initial registration fee and annual renewal fee outlined in this chapter;

2. An owner or operator of a treatment, storage, disposal facility who ships hazardous waste from the facility shall comply with this rule;

3. The following constitutes the procedure for registering:

A. A person subject to registration shall file a completed registration form furnished by the department. The department requires an original ink signature on all registration forms before processing. In the event the department develops the ability to accept electronic submission of the registration form, the signature requirement will be consistent with the legally-accepted standards in Missouri for an electronic signature on documents. All generators located in Missouri shall use only the Missouri version of the registration form;

B. A person subject to registration shall also complete and file an updated generator registration form if the information filed with the department changes;

C. The department may request additional information, including information concerning the nature and hazards associated with a particular waste or any information or reports concerning the quantities and disposition of any hazardous wastes as necessary to authorize storage, treatment, or disposal and to ensure proper hazardous waste management;

D. A person subject to generator registration, and those conditionally-exempt generators who choose to register, shall pay a one hundred dollar ($100) initial or reactivation registration fee at the time their registration form is filed with the department. If a generator site has an inactive registration, and a generator subject to registration reactivates that registration, the generator shall file a registration form and pay the one hundred dollar ($100) registration reactivation fee. The department will not process any form for an initial registration or reactivation of a registration if the one hundred dollar ($100) fee is not included. Generators subject to registration shall thereafter pay an annual renewal fee of one hundred dollars ($100) in order to maintain their registration in good standing; and

E. The department will immediately revoke the registration of any person who pays the registration fee with what is found to be an insufficient check;

4. The following constitutes the procedure for registration renewal:

A. The calendar year constitutes the annual registration period;

B. Annual registration renewal billings will be sent by December 1 of each year to all generators holding an active registration;

C. Any generator initially registering between October 1 and December 31 of any given year shall pay the initial registration fee, but does not pay the annual renewal fee for the calendar year immediately following their initial registration. From that year forward, the generator shall pay the annual renewal fee;

D. The department will administratively inactivate the registration of any generator subject to registration who fails to pay the annual renewal fee by the due date specified on the billing, and the generator will be subject to enforcement action for failure to properly maintain their registration;

E. Generators administratively inactivated for failure to pay the renewal fee in a timely manner, who later in the same registration year pay the annual renewal fee, shall pay the fifteen percent (15%) late fee section 260.380.4, RSMo, in addition to the one hundred dollar ($100) annual renewal fee for each applicable registration year and shall file an updated generator registration form with the department before their registration is reactivated by the department;

F. Generators who request that their registration be made inactive rather than pay the renewal fee, who later in that same renewal year pay the annual renewal fee to reactivate their registration, shall pay the fifteen percent (15%) late fee in section 260.380.4, RSMo, in addition to the one hundred dollar ($100) annual renewal fee and file an updated generator registration form with the department before their registration is reactivated by the department; and

G. The department will immediately revoke the registration of any person who pays the annual renewal fee with what is found to be an insufficient check; and

5. The department may administratively inactivate the registration of generators that fail to pay any applicable hazardous waste fees and taxes in a timely manner after appropriate notice to do so.

(C) Pretransport, Containerization, and Labeling Requirements.

1. Satellite accumulation. As an alternative to compliance with the accumulation limits in 40 CFR 262.34(c)(1), generators who instead wish to store up to fifty-five (55) gallons of each non-acute hazardous waste stream, or up to one (1) quart of each acutely hazardous waste stream in a satellite accumulation area may do so if they comply with the other applicable requirements of 40 CFR 262.34(c) and the following additional requirements:

A. Each container must be marked with its beginning date of satellite storage;

B. The generator may not use more than one (1) container per waste stream;

C. A container of hazardous waste stored in a satellite accumulation area pursuant to this paragraph 3. shall be removed from the satellite accumulation area within three (3) calendar days if any of the following occurs:

(I) One (1) year has passed since the accumulation start date;

(II) The container is full; or

(III) The container has reached its volume limit;

D. A container of hazardous waste removed from the satellite accumulation area pursuant to subparagraph C. above must be taken to the generator storage area, shipped off-site for proper hazardous waste management, or managed in accordance with an approved hazardous waste permit or certification at the site;

E. In lieu of 40 CFR 262.34(c)(2), during the three (3) day period referenced in subparagraph D. above, the generator may start a new satellite container for that waste stream if in compliance with all other requirements of paragraph 3. and 40 CFR 262.34(c)(1) as modified by this paragraph 3; and

F. For generators that have more than one satellite accumulation area in a single facility, a generator may use the federal option in 40 CFR 262.34(2)(C)1. or the option described in 10 CSR 25-5.262(2)(C)3. for any satellite accumulation area; however, in no case shall a generator employ both methods in the same satellite accumulation area at the same time.

2. 40 CFR 262.34(a)(1)(iii) is not incorporated in this rule.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 25—Hazardous Waste Management Commission
## Chapter 6—Rules Applicable to Transporters of Hazardous Waste

### ORDER OF RULEMAKING

By the authority vested in the Hazardous Waste Management Commission under sections 260.370, 260.373, 260.385, and 260.395, RSMo 2016, the commission hereby amends a rule as follows:

10 CSR 25-6.263 is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on July 16, 2018 (43 MoReg 1767-1772). Those sections with changes are reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held September 13, 2018, and the public comment period ended September 20, 2018. At the public hearing the Department of Natural Resources testified that the proposed amendment would reduce the burden on the regulated community in Missouri by removing outdated requirements, unnecessary restrictive words, and duplicative rule language. There was no other testimony on this rule at the hearing and no comments were received.

COMMENT #1: During the public comment period, the department identified some editorial changes that need to be made to the final rule language. In 10 CSR 25-6.263(2)(A)4.B.(IV)., the word "Include" needs to be inserted at the beginning so that the full sentence, including the words in (2)(A)4.B., will now read "The certificate of insurance shall include a surety bond…".
RESPONSE AND EXPLANATION OF CHANGE: The department agrees with the comment and has proposed changes to this subsection of the rule in this Order of Rulemaking. The revised language is included below.

**10 CSR 25-6.263 Standards for Transporters of Hazardous Waste**

(2) A hazardous waste transporter shall comply with the requirements of this section in addition to those set forth in section (1). Any reference to a 40 CFR cite in this section means as that provision is incorporated in 10 CSR 25. (Comment: This section has been organized in order within the corresponding subsection of this section. For example, the additional requirements being added to 40 CFR part 263 subpart A are found in subsection (2)(A).)

(A) In addition to the requirements in 40 CFR part 263 subpart A, the following applies:

1. In 40 CFR 263.10(a) and (c)(1), incorporated in this rule, substitute "the state of Missouri" for "United States";

2. In the last paragraph of the note following 40 CFR 263.10(a), change "49 CFR parts 171 through 179" to "49 CFR parts 171 through 180 and parts 383, 387, and 390–397" and add the following to the note: "The parts of 49 CFR are incorporated to the extent that these regulations do not conflict with the laws and regulations of the state of Missouri, or, in the event the regulations conflict, the more stringent regulations control. The equipment used in the transportation of hazardous waste shall meet the standards of the Missouri Department of Transportation's Division of Motor Carrier and Railroad Safety, the United States Department of Transportation, and the Federal Railroad Administration, or any combination of them, as applicable for the types of hazardous materials for which it will be used. The equipment to be used in the transportation of hazardous waste shall be compatible with that waste and adequate to protect the health of humans and prevent damage to the environment";

3. License requirements for power unit transporters of hazardous waste, used oil, or infectious waste. In accordance with 10 CSR 25-6.263, 10 CSR 25-11.279(2)(E)1., or 10 CSR 80-7.010(4), to be licensed by the department hazardous waste transporters shall comply with the following requirements:

A. Power unit transporters shall submit to the department an application for a license on a form furnished by the department and completed with the following information:

(I) The applicant's name, address, location of the principal office, or place of business, and the legal owner of the applicant company;

(II) A description of the service proposed to be rendered;

(III) The applicant's Environmental Protection Agency (EPA) identification number;

(IV) The number of power units to be used;

(V) A certification that the applicant's equipment and operating procedures meet the standards of the Missouri Division of Motor Carrier and Railroad Safety, the Federal Department of Transportation (DOT), or the Federal Railroad Administration, or both;

(VI) A description of each power unit to include make, model, year, vehicle identification number (VIN), licensed vehicle weight, and state and number of the license plate and a description of the trailers (cargo box, van, tank) and maximum trailer capacities used by the transporter;

(VII) A disclosure statement for the applicant, principal corporate officers, and the holders of more than twenty percent (20%) of the applicant company. If any of these persons were involved in hazardous waste management before their association with the applicant company, the applicant shall submit this information to the department including the names of these persons and the names and locations of the companies with which they were associated; and

(VIII) For applicants who are not residents of Missouri, a written statement designating the director of the department as the authorized agent upon whom legal service may be made for all actions arising in Missouri from any operation of motor vehicles

under authority of the department.

B. In addition to the completed application, an applicant shall submit each of the following:

(I) A fee as specified in 10 CSR 25-12.010;

(II) The insurance document(s) as specified in paragraph (2)(A)4. of this rule; and

(III) Statements, documents, or both, of the following, where applicable:

(a) If the applicant is a partnership, include an affidavit to this effect signed by the proprietor or include a copy of the partnership agreement. If no written partnership agreement has been entered into, include a statement summarizing the agreement between the parties which is signed by each of the partners and certified by a notary public;

(b) If the applicant is a Missouri corporation or a foreign corporation with authority to conduct business in Missouri or is a foreign corporation with facilities or employees in Missouri, a Certificate of Corporate Good Standing from the Missouri secretary of state and if the applicant is a nonresident corporation without facilities or employees in Missouri, a Certificate of Good Standing from the state or country of residence; and

(c) If the applicant is conducting its business under an assumed or fictitious name, a certified copy of the registration with the Missouri secretary of state of the assumed or fictitious name.

C. License renewal.

(I) At least sixty (60) days prior to the expiration date of his/her current license, a hazardous waste transporter wishing to renew his/her license shall submit a license renewal application on a form furnished by the department, including a Certificate of Corporate Good Standing issued within the twelve (12) months preceding the license expiration date, documents that satisfy the insurance requirements in paragraph (2)(A)4. of this rule, except for other than power unit carriers, and a fee as specified in 10 CSR 25-12.

D. Power unit additions, replacements, and temporary permits. Changes made to the power unit listings as shown on the current license application or renewal form shall be reported to the department as follows: A power unit can be added by submitting a written description of the power unit to be added and paying a fee in accordance with 10 CSR 25-12.010. A power unit can be replaced for another without any charge by submitting a description of the original power unit and its replacement. A power unit can be issued a temporary permit for a thirty- (30-) day period by submitting a written description of the power unit and paying a fee in accordance with 10 CSR 25-12.010.

E. Proof of license. A transporter shall carry proof of license with each power unit transporting hazardous waste within Missouri. A legible copy of this certificate shall be in the possession of the driver of the power unit and shown upon demand to representatives of the department, officers of the Missouri State Highway Patrol, and other law enforcement officials;

4. Insurance.

A. Transporters licensed in accordance with this chapter shall at all times have on file with the department a certification of public liability (bodily injury and property damage) insurance which includes the required, uniform endorsements covering each motor vehicle in accordance with 49 CFR part 387 incorporated by reference in this rule. The minimum level of insurance coverage shall not be less than one (1) million dollars combined single limit. (Comment: The federal regulations at 49 CFR 387.9 set forth certain conditions which require five (5) million dollars coverage.)

B. The certificate of insurance shall—

(I) State that the insurer has issued to the motor carrier a policy of insurance which, by endorsement, provides automobile bodily injury and property damage liability insurance covering the obligations imposed upon the motor carrier by the provisions of the law of Missouri;

(II) Be duly completed and executed by the insurer on Form E—Uniform Motor Carrier Bodily Injury and Property Damage Liability Certificate of Insurance;

(III) Be duly completed and executed by the insurer with the endorsements made on Form F—Uniform Motor Carrier Bodily Injury and Property Damage Liability Insurance Endorsements attached to the insurance policy and forming a part of that policy; and

(IV) Include a surety bond, duly completed and executed by the surety and principal, in the form set forth in Form G—Uniform Motor Carrier Bodily Injury and Property Damage Surety Bond.

C. An insurer under the provisions of this rule shall submit to the department not fewer than thirty (30) days' notice of cancellation of motor carrier bodily injury and property damage liability insurance by filing with the department the form of notice set forth in Form K—Uniform Notice of Cancellation of Motor Carrier Insurance Policies. The notice shall be duly completed and executed by the insurer. A surety under the provisions of this rule shall give the department not fewer than thirty (30) days' notice of the cancellation of motor carrier bodily injury and property damage liability surety bond by filing with the department the form of notice set forth in Form L—Uniform Notice of Cancellation of Motor Carrier Surety Bond. The notice shall be duly completed and executed by the surety or motor carrier.

D. Forms E, F, G, K, and L referred to in subparagraphs (2)(A)4.B. and C. of this rule are the standard forms determined by the National Association of Regulatory Utility Commissioners and promulgated by the Interstate Commerce Commission pursuant to the provisions of section 202(b)(2) of the Interstate Commerce Act, 49 U.S.C. section 302(b)(2), 1994.

E. Before any policy of insurance will be accepted by the department, the insurance company issuing the policy or the carrier offering the same, upon request of the department, shall furnish evidence satisfactory to the department that the insurance company issuing the policy is duly authorized to transact business in Missouri and that it is financially able to meet the obligations of the policy offered.

F. All insurance certificates and surety bonds filed with the department shall remain on file with the department and shall not be removed except with the written permission of the director.

G. A new certificate of insurance shall be filed for reinstatement of insurance which has been canceled;

5. Vehicle marking. The transportation vehicle used to ship hazardous waste shall be marked in accordance with 49 CFR 390.21(b) and (c);

6. No hazardous waste shall be accepted for transport unless it has been properly loaded and secured in accordance with 49 CFR 177.834;

7. Incompatible wastes. A waste shall not be added to an unwashed or uncleaned container that previously held an incompatible material;

8. In addition to the requirements in 40 CFR 263.10(c)(1), add the following requirements: A transporter who accepts shipments of hazardous waste from a person not subject to registration as a generator in accordance with 10 CSR 25-5.262, and in so doing accumulates one hundred kilograms (100 kg) or more of hazardous waste, becomes a generator and shall comply with 10 CSR 25-5.262 in addition to the requirements of this rule. (Note: This provision is not intended to apply to municipal waste haulers who may unknowingly pick up small quantities of hazardous waste that may have been deposited in solid waste containers along their routes.);

9. In addition to the requirements in 40 CFR 263.11, add the following: "In the event that an EPA identification number has not been assigned, the department will assign an EPA identification number." The applicant shall also submit an application for license in accordance with this rule at the time of notification; and

10. In addition to the requirements in 40 CFR 263.12, the following rules apply to transfer facilities (Note: Used oil transfer facilities are regulated under 10 CSR 25-11.279.):

A. A hazardous waste transported intrastate or into the state by motor carrier shall arrive at its destination in ten (10) calendar

days or less from the date the initial transporter signs the manifest, or when the waste first enters the state, unless departmental approval is obtained prior to the expiration of the ten- (10-) day period;

B. A hazardous waste destined for out-of-state treatment, storage, or disposal shall leave the state in ten (10) calendar days or less from the date the initial transporter signs the manifest unless departmental approval is obtained prior to the expiration of the ten- (10-) day period;

C. A hazardous waste transported through the state by motor carrier shall pass through the state in ten (10) calendar days or less unless departmental approval is obtained prior to the expiration of the ten- (10-) day period;

D. A secondary containment system for storage of hazardous waste in containers at a transfer facility shall be designed, maintained, and operated as follows:

(I) With a base under the container(s) which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed;

(II) With the base sloped or the containment system designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids;

(III) With a capacity equal to ten percent (10%) of the containerized waste volume or the volume of the largest container, whichever is greater (Containers that do not contain free liquids need not be considered in this calculation.);

(IV) With run-on into the containment system prevented unless the collection system has sufficient excess capacity in addition to that specified in part (2)(A)10.D.(I) of this rule to contain any run-on which might enter the system; and

(V) With removal of spilled or leaked waste and accumulated precipitation from the sump or collection area as necessary to prevent overflow of the collection system; and

(VI) Including the containment system as part of the weekly inspections specified in 40 CFR 265.174 incorporated by reference in 10 CSR 25-7.265(1);

E. The following requirements apply to the transporter's management of ignitable, reactive, incompatible, or volatile wastes at a transfer facility:

(I) Take precautions to prevent accidental ignition or reaction of ignitable or reactive wastes.

(II) Separate and protect wastes identified in E of this section from sources of ignition or reaction including, but not limited to, open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (that is, from heat-producing chemical reactions), and radiant heat.

(III) While ignitable or reactive waste is being handled, confine smoking and open flame to specially designated locations.

(IV) Conspicuously place No Smoking signs wherever there is a hazard from ignitable or reactive waste;

F. Preparedness and prevention. A transporter shall equip the transfer station as specified in 40 CFR 265.32 incorporated by reference in 10 CSR 25-7.265(1). In addition, a transporter shall also provide safety equipment such as fire blankets, gas masks, and self-contained breathing apparatus unless the hazards posed by the type of waste managed does not warrant using this additional safety equipment;

G. Closure. At closure of the storage area, a transporter shall remove and properly dispose of all hazardous waste and hazardous residues. For the purpose of this subparagraph, closure shall occur when the storage of hazardous wastes has not occurred, or is not expected to occur for one (1) year, or when the transporter's license lapses, whichever first occurs;

H. The contents of separate containers of hazardous waste may not be combined at a transfer facility. Individual lab packed containers may be placed in a larger container if, when containers are overpacked, the transporter affixes labels to the overpack container, which are identical to the labels on the original shipping container; and

I. A transfer facility shall not be the same facility as designated in item 8 of the manifest.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 25—Hazardous Waste Management Commission
## Chapter 7—Rules Applicable to Owners/Operators of Hazardous Waste Facilities

## ORDER OF RULEMAKING

By the authority vested in the Hazardous Waste Management Commission under sections 260.370, 260.390, and 260.395, RSMo 2016, the commission hereby amends a rule as follows:

10 CSR 25-7.264 is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on July 16, 2018 (43 MoReg 1772-1774). Those sections with changes are reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held September 13, 2018, and the public comment period ended September 20, 2018. At the public hearing the Department of Natural Resources testified that the proposed amendment would reduce the burden on the regulated community in Missouri by removing outdated requirements, unnecessary restrictive words, and duplicative rule language.

COMMENT #1: During the public comment period, the department noticed that a section of the rule open for public comment contains a Missouri requirement that is no longer enforceable and should therefore be removed. The requirement is found in 10 CSR 25-7.264(2)(E)1 and states that an original copy of the manifest must be submitted to the department. As part of the federal electronic manifest system recently implemented nationwide, the department employee pointed out that states are prohibited from requiring state copies of manifests, and this requirement is therefore unenforceable, is not currently being enforced, and should be removed to avoid any confusion about this requirement.
RESPONSE AND EXPLANATION OF CHANGE: The department agrees with the comment and has proposed changes to this subsection (2)(E) of the rule to eliminate this requirement in this Order of Rulemaking.

COMMENT #2: Since proposal of the rule amendment, Department staff determined that, in some instances, replacing the word "shall" with the word "will" could result in confusion over whether the requirement is mandatory and therefore in these instances the word "shall" should be retained. The proposed amendment would replace the word "shall" with the word "will" in one instance in 10 CSR 25-7.264(3)(A)2. of this rule that meets this criteria.
RESPONSE AND EXPLANATION OF CHANGE: The Department agrees with this comment and is revising the language in the portion of the rule cited in the above comment in order to retain the word "shall", which will clarify that the requirement in question is mandatory. The revised language is included in the Order of Rulemaking below.

**10 CSR 25-7.264 Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities**

(2) The owner or operator of a permitted hazardous waste treatment,

storage, or disposal facility shall comply with this section in addition to the regulations of 40 CFR part 264. In the case of contradictory or conflicting requirements, the more stringent requirements control. (Comment: This section has been organized so that all Missouri additions, changes, or deletions to any subpart of the federal regulations are noted within the corresponding subsection of this section. For example, the requirements to be added to 40 CFR part 264 subpart E are found in subsection (2)(E) of this rule.)

(E) Manifest System, Record Keeping, and Reporting. This subsection sets forth requirements which modify or add to those requirements in 40 CFR part 264 subpart E.

1. The owner or operator of a hazardous waste management facility shall submit a report to the department as set forth in this paragraph.

A. All owners or operators shall comply with the reporting requirements in 10 CSR 25-5.262(2)(D) regardless of whether the owner or operator is required to register as a generator pursuant to 10 CSR 25-5.262(2)(A)1.

B. In addition to the requirements in 10 CSR 25-5.262(2)(D) for hazardous waste generated on-site and shipped off-site for treatment, storage, or disposal, the owner or operator shall meet the same requirements for the following:

(I) All hazardous waste generated on-site during the reporting period that is managed on-site; and

(II) All hazardous waste received from off-site during the reporting period, including hazardous waste generated by another generator and hazardous waste generated at other sites under the control of the owner or operator.

C. In addition to the information specified in 10 CSR 25-5.262(2)(D), an owner or operator shall include the following information in the summary report:

(I) A description and the quantity of each hazardous waste that was both generated and managed on-site during the reporting period;

(II) For each hazardous waste that was received from off-site, a description and the quantity of each hazardous waste, the corresponding state, and EPA identification numbers of each generator;

(III) For imports, the name and address of the foreign generator;

(IV) The corresponding method of treatment, storage, disposal, or other approved management method used for each hazardous waste; and

(V) The quantity and description of hazardous waste residue generated by the facility.

2. As outlined in section 260.380.2, RSMo, all owners or operators shall pay a fee to the department of two dollars ($2) per ton or portion thereof for any and all hazardous waste received from outside of Missouri. This fee is referred to as the Out-of-State Waste Fee and does not apply to hazardous waste received directly from other permitted treatment, storage, and disposal facilities located in Missouri.

A. For each owner or operator, this fee shall be paid on or before January 1 of each year and is based on the total tons of hazardous waste received in the aggregate by that owner or operator for the twelve- (12-) month period ending the previous June 30. As outlined in section 260.380.4, RSMo, failure to pay this fee in full by the due date shall result in imposition of a late fee equal to fifteen percent (15%) of the total original fee. Each twelve- (12-) month period ending on June 30 shall be referred to as a reporting year.

B. Owners or operators may elect, but are not required, to pay this fee on a quarterly basis at the time they file the reports specified in subparagraphs (2)(E)1.B. and C. of this rule. If they do not choose to pay the fee quarterly, owners or operators may elect, but are not required, to pay the fee at the time they file their final quarterly report of each reporting year. However, the total fee for each reporting year must be paid on or before January 1 immediately following the end of each reporting year.

**EXAMPLES OF OUT-OF-STATE WASTE FEE CALCULATION**

Example 1. ABC Company reports receiving 250 tons of hazardous waste from outside of Missouri:

$2 × 250 tons = $500 fee

Example 2. ABC Company reports receiving 410.6 tons of hazardous waste from outside of Missouri. The number of tons would be rounded to 411:

$2 × 411 tons = $822 fee

Example 3. ABC Company reports receiving 52,149.3 tons of hazardous waste from outside of Missouri. The number of tons would be rounded to 52,150:

$2 × 52,150 tons = $104,300 fee

(3) Permitted hazardous waste TSD facilities that accept and/or ship hazardous waste via railroad tank car (railcar) shall comply with the requirements for container storage in 40 CFR part 264 subpart I, as incorporated by reference in 10 CSR 25-7.264(1), or the following requirements for railcar management.

(A) The owner or operator shall submit a railcar management plan with the application for a hazardous waste treatment, storage, or disposal facility permit. Permitted facilities that currently accept and/or ship hazardous waste via railcars shall request a Class I permit modification that requires prior director approval for the railcar management plan according to the procedures defined in 40 CFR 270.42 as incorporated in 10 CSR 25-7.270(1).

1. The railcar management plan shall describe steps to be taken by the facility in order to comply with the requirements of subsections (3)(B)–(3)(F).

2. The railcar management plan shall be maintained at the facility.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 25—Hazardous Waste Management Commission
## Chapter 7—Rules Applicable to Owners/Operators of Hazardous Waste Facilities

### ORDER OF RULEMAKING

By the authority vested in the Hazardous Waste Management Commission under sections 260.370, 260.390, and 260.395, RSMo 2016, the commission hereby amends a rule as follows:

**10 CSR 25-7.265** Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on July 16, 2018 (43 MoReg 1774-1777). No changes were made to the text of this proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held September 13, 2018, and the public comment period ended September 20, 2018. At the public hearing the Department of Natural Resources testified that the proposed amendment would reduce the burden on the regulated community in Missouri by removing outdated requirements, unnecessary restrictive words, and duplicative rule language. There was no other testimony on this rule at the hearing and no comments were received.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 25—Hazardous Waste Management Commission
## Chapter 7—Rules Applicable to Owners/Operators of Hazardous Waste Facilities

### ORDER OF RULEMAKING

By the authority vested in the Hazardous Waste Management Commission under sections 260.370, 260.373, 260.390, and 260.395, RSMo 2016, the commission hereby amends a rule as follows:

**10 CSR 25-7.266** Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on July 16, 2018 (43 MoReg 1777-1778). No changes were made to the text of this proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held September 13, 2018, and the public comment period ended September 20, 2018. At the public hearing the Department of Natural Resources testified that the proposed amendment would reduce the burden on the regulated community in Missouri by removing outdated requirements, unnecessary restrictive words, and duplicative rule language. There was no other testimony on this rule at the hearing and no comments were received.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 25—Hazardous Waste Management Commission
## Chapter 7—Rules Applicable to Owners/Operators of Hazardous Waste Facilities

### ORDER OF RULEMAKING

By the authority vested in the Hazardous Waste Management Commission under sections 260.370, 260.373, 260.390, and 260.395, RSMo 2016, the commission hereby amends a rule as follows:

**10 CSR 25-7.270** Missouri Administered Permit Programs: The Hazardous Waste Permit Program **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on July 16, 2018

(43 MoReg 1778-1779). No changes were made to the text of this proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held September 13, 2018, and the public comment period ended September 20, 2018. At the public hearing the Department of Natural Resources testified that the proposed amendment would reduce the burden on the regulated community in Missouri by removing outdated requirements, unnecessary restrictive words, and duplicative rule language. There was no other testimony on this rule at the hearing and no comments were received.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 25—Hazardous Waste Management Commission
## Chapter 8—Public Participation and General Procedural Requirements

### ORDER OF RULEMAKING

By the authority vested in the Hazardous Waste Management Commission under sections 260.370, 260.400, 260.405, and 260.437, RSMo 2016, the commission hereby amends a rule as follows:

10 CSR 25-8.124 is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on July 16, 2018 (43 MoReg 1779-1787). No changes were made to the text of this proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held September 13, 2018, and the public comment period ended September 20, 2018. At the public hearing the Department of Natural Resources testified that the proposed amendment would reduce the burden on the regulated community in Missouri by removing outdated requirements, unnecessary restrictive words, and duplicative rule language. There was no other testimony on this rule at the hearing.

COMMENT #1: During the public comment period, the department identified some editorial changes that need to be made to the final rule language. In 10 CSR 25-8.124(2)(F), the word "section" should be added before "260.400, RSMo".
RESPONSE AND EXPLANATION OF CHANGE: The department agrees with the comment and has proposed changes to this subsection of the rule in this Order of Rulemaking. The revised language is included below.

**10 CSR 25-8.124 Procedures for Decision Making**

(2) Appeal of Final Decision.

(F) Any public notice of appeals, including the time, date, and place of the appeal hearing, will be given by the Administrative Hearing Commission in accordance with section 260.400 RSMo.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 25—Hazardous Waste Management Commission
## Chapter 9—Resource Recovery

### ORDER OF RULEMAKING

By the authority vested in the Hazardous Waste Management Commission under sections 260.370, 260.373, and 260.395, RSMo 2016, the commission hereby rescinds a rule as follows:

**10 CSR 25-9.020** Hazardous Waste Resource Recovery Processes **is rescinded**.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on July 16, 2018 (43 MoReg 1787-1789). No changes were made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held September 13, 2018, and the public comment period ended September 20, 2018. At the public hearing the Department of Natural Resources testified that the proposed rescission would remove a rule that is no longer needed, which will allow recycling of hazardous secondary material under a newly-adopted federal rule without requiring a resource recovery certificate, while ensuring that recycling is done in a safe and effective manner. There was no other testimony on this rule at the hearing and no comments were received.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 25—Hazardous Waste Management Commission
## Chapter 10—Abandoned or Uncontrolled Hazardous Waste Disposal Sites

### ORDER OF RULEMAKING

By the authority vested in the Hazardous Waste Management Commission under sections 260.370, 260.437, 260.440, 260.445, and 260.455, RSMo 2016, the commission hereby rescinds a rule as follows:

**10 CSR 25-10.010** Abandoned or Uncontrolled Hazardous Waste Disposal Sites **is rescinded**.

A notice of proposed rulemaking containing the proposed rescission was published in the *Missouri Register* on July 16, 2018 (43 MoReg 1790). No changes were made to the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held September 13, 2018, and the public comment period ended September 20, 2018. At the public hearing the Department of Natural Resources testified that the proposed rescission would remove a rule that is no longer needed because it mostly duplicates statutory language and other information is outdated. There was no other testimony on this rule at the hearing and no comments were received.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 25—Hazardous Waste Management Commission
## Chapter 11—Used Oil

### ORDER OF RULEMAKING

By the authority vested in the Hazardous Waste Management Commission under section 260.370, RSMo 2016, the commission hereby amends a rule as follows:

**10 CSR 25-11.279** Recycled Used Oil Management Standards **is amended**.

A notice of proposed rulemaking containing the text of the proposed

amendment was published in the *Missouri Register* on July 16, 2018 (43 MoReg 1790-1792). No changes were made to the text of this proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held September 13, 2018, and the public comment period ended September 20, 2018. At the public hearing the Department of Natural Resources testified that the proposed amendment would reduce the burden on the regulated community in Missouri by removing outdated requirements, unnecessary restrictive words, and duplicative rule language. There was no other testimony on this rule at the hearing and no comments were received.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 25—Hazardous Waste Management Commission
## Chapter 12—Hazardous Waste Fees and Taxes

### ORDER OF RULEMAKING

By the authority vested in the Hazardous Waste Management Commission under section 260.370, RSMo 2016, the commission hereby amends a rule as follows:

**10 CSR 25-12.010** Fees and Taxes **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on July 16, 2018 (43 MoReg 1792-1795). No changes were made to the text of this proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held September 13, 2018, and the public comment period ended September 20, 2018. At the public hearing the Department of Natural Resources testified that the proposed amendment would reduce the burden on the regulated community in Missouri by removing outdated requirements, unnecessary restrictive words, and duplicative rule language. There was no other testimony on this rule at the hearing and no comments were received.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 25—Hazardous Waste Management Commission
## Chapter 13—Polychlorinated Biphenyls

### ORDER OF RULEMAKING

By the authority vested in the Hazardous Waste Management Commission under section 260.370 RSMo 2016, the commission hereby amends a rule as follows:

**10 CSR 25-13.010** Polychlorinated Biphenyls **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on July 16, 2018 (43 MoReg 1795-1798). No changes were made to the text of this proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held September 13, 2018, and the public comment period ended September 20, 2018. At the public hearing the Department of Natural Resources testified that the proposed amendment would reduce the burden on the regulated community in Missouri by removing outdated requirements, unnecessary restrictive words, and duplicative rule language. There was no other testimony on this rule at the hearing and no comments were received.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 25—Hazardous Waste Management Commission
## Chapter 15—Hazardous Substance Environmental Remediation (Voluntary Cleanup Program)

### ORDER OF RULEMAKING

By the authority vested in the Hazardous Waste Management Commission under sections 260.370, 260.567, 260.569, 260.571, and 260.573, RSMo 2016, the commission hereby amends a rule as follows:

**10 CSR 25-15.010** Hazardous Substance Environmental Remediation (Voluntary Cleanup Program) **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on July 16, 2018 (43 MoReg 1798-1800). No changes were made to the text of this proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held September 13, 2018, and the public comment period ended September 20, 2018. At the public hearing the Department of Natural Resources testified that the proposed amendment would remove language that duplicates statutory language and remove other language that conflicts with statutory language. There was no other testimony on this rule at the hearing and no comments were received.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 25—Hazardous Waste Management Commission
## Chapter 16—Universal Waste

### ORDER OF RULEMAKING

By the authority vested in the Hazardous Waste Management Commission under section 260.370, RSMo 2016, the commission hereby amends a rule as follows:

**10 CSR 25-16.273** Standards for Universal Waste Management **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on July 16, 2018 (43 MoReg 1800-1802). No changes were made to the text of this proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: A public hearing was held September 13, 2018, and the public comment period ended September 20, 2018. At the public hearing the Department of Natural Resources testified that the proposed amendment would reduce the burden on the regulated community in Missouri by removing outdated requirements, unnecessary restrictive words, and duplicative rule language. There was no other testimony on this rule at the hearing and no comments were received.

## Title 10—DEPARTMENT OF NATURAL RESOURCES
## Division 26—Petroleum and Hazardous Substance Storage Tanks
## Chapter 2—Underground Storage Tanks–Technical Regulations

### ORDER OF RULEMAKING

By the authority vested in the Department of Natural Resources under sections 319.100–319.137, RSMo 2016 and RSMo Supp. 2018, the department hereby withdraws a proposed amendment as follows:

**10 CSR 26-2.080** Risk-Based Target Levels **is withdrawn**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the Missouri Register on August 1, 2018 (43 MoReg 2263-2265). This proposed amendment is withdrawn.

SUMMARY OF COMMENTS: A public hearing on this proposed amendment was held September 13, 2018, and the public comment period ended September 20, 2018. At the public hearing the Department of Natural Resources testified that the proposed amendment would reduce the burden on the regulated community in Missouri by removing outdated requirements, unnecessary restrictive words, and duplicative rule language. The department received written comments from Mark Jordan with Wallis Oil Company, Ron Leone with Missouri Petroleum Marketers and Convenience Store Association, and James Greer with MFA Oil.

COMMENT #1: Mr. Jordan, Mr. Leone, and Mr. Greer all commented that the rule contains outdated information and is no longer necessary and should therefore be rescinded in its entirety. They also commented that the rule contains additional language that is not necessary and is included in other department rules and guidance documents; that the proposed additional language conflicts with language in other associated rules and guidance documents; and that the proposed additional language is confusing and unclear. RESPONSE AND EXPLANATION OF CHANGE: The department agrees that the rule contains outdated information and unnecessary rule language, while potentially creating conflicts with other existing rules. Therefore, adoption of the amendment is not appropriate at this time. The department proposed an amendment, rather than a rescission, because the department initially determined that one portion of the current rule is still needed. Specifically, the department determined that the portion of the rule that discusses circumstances in which sites can be reevaluated is still necessary because similar language does not appear in other rules. However, after a thorough review of other rules, the department determined that this authority does exist in other rules, as well as in a related guidance document, so there is no need to put similar language into this rule. Because a proposed amendment of the rule was published in the Missouri Register, rescission of the rule is not an option at this time. The proposed amendment must be withdrawn before proposing a rescission of the rule in its entirety. The department believes withdrawal and later rescission of the entire rule is the best option at this time.

COMMENT #2: Mr. Jordan, Mr. Leone and Mr. Greer all commented that the Purpose Statement of the proposed rule uses the term "release", rather than the word "site", and that this is inappropriate because the authorizing statute and the rule itself use the term "site". RESPONSE: The department concurs that the Purpose Statement for the proposed amendment does potentially create conflicts over interpretation of the terms "release" and "site" as one term is used in the Purpose Statement and another in the rule itself. By withdrawing the proposed amendment, inconsistent use of these terms is no longer an issue.

COMMENT #3: Mr. Leone commented that the proposed changes go beyond the stated purpose in the Purpose Statement. RESPONSE: The department acknowledges potential confusion about whether the proposed rule language in the amendment goes beyond the stated purpose. Because the department has also determined that the rule is not needed at this time and that the amendment should therefore be withdrawn, any inconsistencies between the rule language and the Purpose Statement are no longer an issue.

COMMENT #4: Mr. Leone commented that there was no finding of necessity for the rule, no economic analysis, and that the changes deserve a full and complete airing before affected stakeholders. RESPONSE: The department acknowledges the comment and will consider these comments before additional changes to the rule are proposed.

## Title 13—DEPARTMENT OF SOCIAL SERVICES
## Division 10—Division of Finance and Administrative Services
## Chapter 3—Tax Credits

### ORDER OF RULEMAKING

By the authority vested in the Department of Social Services, Division of Finance and Administrative Services under sections 135.1150 and 660.017, RSMo 2016, the division amends a rule as follows:

**13 CSR 10-3.010** Residential Treatment Agency Tax Credit **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on September 4, 2018 (43 MoReg 2544–2546). No changes have been made in the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

## Title 13—DEPARTMENT OF SOCIAL SERVICES
## Division 10—Division of Finance and Administrative Services
## Chapter 3—Tax Credits

### ORDER OF RULEMAKING

By the authority vested in the Department of Social Services, Division of Finance and Administrative Services under section 660.017, RSMo 2016, and section 135.630, RSMo Supp. 2018, the division amends a rule as follows:

**13 CSR 10-3.020** Pregnancy Resource Center Tax Credit **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on September 4, 2018 (43 MoReg 2546–2549). No changes have been made in the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 13—DEPARTMENT OF SOCIAL SERVICES**
**Division 10—Division of Finance and Administrative Services**
**Chapter 3—Tax Credits**

**ORDER OF RULEMAKING**

By the authority vested in the Department of Social Services, Division of Finance and Administrative Services under sections 135.1180 and 660.017, RSMo 2016, the division amends a rule as follows:

**13 CSR 10-3.030** Developmental Disability Care Provider Tax Credit **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on September 4, 2018 (43 MoReg 2549–2551). No changes have been made in the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 13—DEPARTMENT OF SOCIAL SERVICES**
**Division 10—Department of Finance and Administrative Services**
**Chapter 3—Tax Credits**

**ORDER OF RULEMAKING**

By the authority vested in the Department of Social Services, Department of Finance and Administrative Services under sections 135.550 and 660.017, RSMo 2016, the division amends a rule as follows:

**13 CSR 10-3.040** Domestic Violence Shelter Tax Credit **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on September 4, 2018 (43 MoReg 2553-2555). No changes have been made in the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Social Services, Division of Finance and Administrative Services, received the following comment.

COMMENT: Jennifer Carter Dochler, Public Policy Director, Missouri Coalition Against Domestic and Sexual Viloence (MCADSV) supports that the rule is being revised to include charitable organizations as a taxpayer as well as additional updates that include notifying the department of any changes in business functions that could impact their qualifying status, changing the reference of the annual cumulative amount of credits from dollars to referencing the statute, apportionment of funds, and updating procedures regarding contributions of stocks and bonds, real estate, and contributions that include a benefit to a donor. We also support that it also moves this rule to a division and chapter with similar tax credit rules.

In conclusion, MCADSV appreciates having these comments taken into consideration.

RESPONSE: Thank you for taking the time to provide comments regarding regulation: 13 CSR 10-3.040 for the Domestic Violence Shelter Tax Credit Program.

The Department of Social Services appreciates that Domestic Violence Shelter Tax Credits provide additional funding to Domestic Violence Shelters some of whom rely on that additional funding stream.

**Title 13—DEPARTMENT OF SOCIAL SERVICES**
**Division 10—Division of Finance and Administrative Services**
**Chapter 3—Tax Credits**

**ORDER OF RULEMAKING**

By the authority vested in the Department of Social Services, Division of Finance and Administrative Services under section 660.017, RSMo 2016, and section 135.600, RSMo Supp. 2018, the division adopts a rule as follows:

**13 CSR 10-3.050** Maternity Home Tax Credit **is adopted**.

A notice of proposed rulemaking containing the text of the proposed rule was published in the *Missouri Register* on September 4, 2018 (43 MoReg 2543-2544). No changes have been made in the text of the proposed rule, so it is not reprinted here. This proposed rule becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 13—DEPARTMENT OF SOCIAL SERVICES**
**Division 40—Family Support Division**
**Chapter 2—Income Maintenance**

**ORDER OF RULEMAKING**

By the authority vested in the Department of Social Services, Family Support Division under sections 207.022 and 660.017, RSMo 2016, the division rescinds a rule as follows:

**13 CSR 40-2.090** Definitions Relating to Money Payments **is rescinded**.

A notice of proposed rulemaking containing the text of the proposed rescission was published in the *Missouri Register* on September 4, 2018 (43 MoReg 2551). No changes have been made in the text of the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

**Title 13—DEPARTMENT OF SOCIAL SERVICES**
**Division 40—Family Support Division**
**Chapter 2—Income Maintenance**

**ORDER OF RULEMAKING**

By the authority vested in the Department of Social Services, Family Support Division under sections 207.022 and 660.017, RSMo 2016, the division amends a rule as follows:

**13 CSR 40-2.150** Date Cash Payments Are Due and Payable **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on September 4, 2018 (43 MoReg 2551-2552). No changes have been made in the text

of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

## Title 13—DEPARTMENT OF SOCIAL SERVICES
## Division 40—Family Support Division
## Chapter 2—Income Maintenance

### ORDER OF RULEMAKING

By the authority vested in the Department of Social Services, Family Support Division under sections 207.022 and 660.017, RSMo 2016, the division rescinds a rule as follows:

**13 CSR 40-2.375** Medical Assistance for Families **is rescinded**.

A notice of proposed rulemaking containing the text of the proposed rescission was published in the *Missouri Register* on Septmeber 4, 2018 (43 MoReg 2552). No changes have been made in the text of the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

## Title 13—DEPARTMENT OF SOCIAL SERVICES
## Division 40—Family Support Division
## Chapter 7—Family Healthcare

### ORDER OF RULEMAKING

By the authority vested in the Department of Social Services, Family Support Division under sections 207.022 and 660.017, RSMo 2016, the division adopts a rule as follows:

**13 CSR 40-7.070** MO HealthNet for Families **is adopted**.

A notice of proposed rulemaking containing the text of the proposed rule was published in the *Missouri Register* on September 4, 2018 (43 MoReg 2552-2553). No changes have been made in the text of the proposed rule, so it is not reprinted here. This proposed rule becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

## Title 13—DEPARTMENT OF SOCIAL SERVICES
## Division 40—Family Support Division
## Chapter 80—Maternity Home Tax Credit

### ORDER OF RULEMAKING

By the authority vested in the Department of Social Services, Division of Family Services under sections 135.600, and 207.020, RSMo 2016, the division rescinds a rule as follows:

**13 CSR 40-80.010** Maternity Home Tax Credit **is rescinded**.

A notice of proposed rulemaking containing the text of the proposed rescission was published in the *Missouri Register* on September 4, 2018 (43 MoReg 2555). No changes have been made in the text of the proposed rescission, so it is not reprinted here. This proposed rescission becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

## Title 13—DEPARTMENT OF SOCIAL SERVICES
## Division 70—MO HealthNet Division
## Chapter 3—Conditions of Provider Participation, Reimbursement and Procedure of General Applicability

### ORDER OF RULEMAKING

By the authority vested in the Department of Social Services, MO HealthNet Division, under sections 208.201 and 660.017, RSMo 2016, and section 208.152, RSMo Supp. 2018, the division withdraws a proposed rule as follows:

**13 CSR 70-3.270** Biopsychosocial Treatment of Obesity for Youth and Adults **is withdrawn**.

A notice of proposed rulemaking containing the text of the proposed rule was published in the *Missouri Register* on September 4, 2018, (43 MoReg 2557-2563). This proposed rule is withdrawn.

SUMMARY OF COMMENTS: The Missouri Department of Social Services, MO HealthNet Division (MHD), received multiple comments from four (4) interested parties on the proposed rule. One comment was in favor of the proposed rule and the others asked for changes regarding fee schedules and criteria of eligibility for the program. Because system work to accomplish the claims payment is not sufficiently complete and analysis of the necessary system work revealed further potential costs, the division feels it is prudent to revisit the proposed payment structure in order to decide if there exists an alternative method that is less costly to implement.
RESPONSE: As a result, the division is withdrawing this rulemaking. The comments will be considered when MHD seeks to propose a rule in the future.

## Title 13—DEPARTMENT OF SOCIAL SERVICES
## Division 70—MO HealthNet Division
## Chapter 20—Pharmacy Program

### ORDER OF RULEMAKING

By the authority vested in the Department of Social Services, MO HealthNet Division under sections 208.201 and 660.017, RSMo 2016, the division withdraws a proposed amendment as follows:

**13 CSR 70-20.060** Professional Dispensing Fee **is withdrawn**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on September 4, 2018 (43 MoReg 2564-2565). This proposed amendment is withdrawn.

SUMMARY OF COMMENTS: The Missouri Department of Social Services, MO HealthNet Division (MHD) received multiple comments from one (1) interested party on the proposed amendment. The comments suggested additions be made to the rule regarding fees and definitions. At this time, MHD continues to have discussions with the Centers for Medicare and Medicaid Services (CMS) regarding a proposed State Plan Amendment (SPA) that is germane to this topic (dispensing fee).
RESPONSE: As a result, the division feels it is preferable to withdraw this proposed amendment until more clarification is received.

The comments will be considered when MHD seeks to propose an amendment in the future.

## Title 13—DEPARTMENT OF SOCIAL SERVICES
## Division 70—MO HealthNet Division
## Chapter 20—Pharmacy Program

## ORDER OF RULEMAKING

By the authority vested in the Department of Social Services, MO HealthNet Division under sections 208.153, 208.201, and 660.017, RSMo 2016, and section 208.152, RSMo Supp. 2018, the division amends a rule as follows:

13 CSR 70-20.070 is amended.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on September 4, 2018 (43 MoReg 2566-2569). Those sections with changes are reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: The Missouri Department of Social Services, MO HealthNet Division (MHD) received comments from three (3) interested parties regarding this proposed amendment: Missouri Pharmacy Association, Truman Medical Center, and Missouri Hospital Association.

COMMENT #1: Ron Fitzwater, Chief Executive Office, with Missouri Pharmacy Association (MPA), requested that the MHD keep the language regarding the Federal Upper Limit in Section (1).
RESPONSE AND EXPLANATION OF CHANGE: The MHD has amended this final rule to keep the language regarding the Federal Upper Limit.

COMMENT #2: Ron Fitzwater, Chief Executive Office, with MPA; Allen Johnson, Chief Financial Officer, with Truman Medical Center (TMC); and Daniel Landon, Senior Vice President of Governmental Relations, with Missouri Hospital Association (MHA), stated that the reimbursement for 340B discount drugs a WAC minus 49% is too aggressive and insufficient to allow providers to recover their cost for many 340B discounted drugs. Two commenters recommended a more reasonable overall discount would be approximately 25%.
RESPONSE AND EXPLANATION OF CHANGE: The MHD has amended this final rule to include effective December 16, 2018, covered drugs for 340B providers who carve-in for Medicaid will be reimbursed at WAC minus 25%.

COMMENT #3: Daniel Landon, Senior Vice President of Governmental Relations, with MHA, stated that cuts to the 340B pharmacy reimbursement undermine the fundamental philosophy of the 340B program and will be especially detrimental to the state's critical access and safety net hospitals.
RESPONSE: The MHD Medicaid FFS payments comply with the access standards in Section 1902(1) (30) (A) of the Social Security Act and ensures efficiency, economy, quality of care, and access. The MHD continually monitors for access and has an infrastructure established to monitor for access. The participant data is closely monitored to assess the number of participants in each category of assistance. The MHD continually monitors the provider enrollment data to demonstrate the number of providers available in each county.

**13 CSR 70-20.070 Drug Reimbursement Methodology**

(1) The MO HealthNet Division will obtain, by contract with a reputable medical publishing company, a weekly computer-generated tape which will provide the information needed to price all fee-for-service Medicaid drug claims. The tape will contain National Drug Code (NDC), drug name, drug strength, dosage form, package size, the prices set by direct-selling manufacturers (direct prices), Wholesaler Acquisition Cost (WAC), federal Health and Human Services upper limits for specified multiple source drugs (FUL), and National Average Drug Acquisition Cost (NADAC). A multiple source drug is defined as a drug marketed or sold by two (2) or more manufacturers or labelers, or a drug marketed or sold by the same manufacturer or labeler under two (2) or more different proprietary names or both under a proprietary name and without that name.

(3) Reimbursement for covered drugs dispensed between April 1, 2017, and December 15, 2018, will be determined by applying the following hierarchy method:
(A) Federal Upper Limit (FUL) price; if there is no FUL;
(B) Missouri Maximum Allowed Cost (MAC); if no FUL or MAC;
(C) Wholesale Acquisition Cost (WAC) minus three and one-tenth percent (3.1%); or
(D) The usual and customary (U&C) charge submitted by the provider if it is lower than the chosen price (FUL, MAC, or WAC).

(4) Effective December 16, 2018, reimbursement for covered drugs will be determined by applying the following hierarchy method:
(A) National Average Drug Acquisition Cost (NADAC); if there is no NADAC;
(B) Missouri Maximum Allowed Cost (MAC); if no NADAC or MAC,
(C) Wholesale Acquisition Cost (WAC); or
(D) The usual and customary (U&C) charge submitted by the provider if it is lower than the chosen price (NADAC, MAC, or WAC).

(5) Between April 1, 2017, and December 15, 2018, reimbursement for covered drugs for 340B providers as defined by the Public Health Service Veterans Health Care Act of 1992 who carve-in for Medicaid will be determined by applying the following method:
(A) Wholesale Acquisition Cost (WAC) minus forty-nine percent (49%); or
(B) The usual and customary (U&C) charge submitted by the provider if it is lower.

(6) Effective December 16, 2018, reimbursement for covered drugs for 340B providers as defined by the Public Health Service Veterans Health Care Act of 1992 who carve-in for Medicaid will be determined by applying the following method:
(A) Wholesale Acquisition Cost (WAC) minus twenty-five percent (25%); or
(B) The usual and customary (U&C) charge submitted by the provider if it is lower.

(7) The professional dispensing fee will be calculated according to 13 CSR 70-20.060.

*REVISED PUBLIC COST: This proposed amendment will save state agencies or political subdivisions $33,500,000 (GR $11,652,174 and FED $21,847,826) between April 1, 2017 and December 15, 2018. After December 16, 2018, the annual estimated savings is $55,300,000.*

*REVISED PRIVATE COST: This proposed amendment will cost private entities an estimate of $33,500,000 annually in the aggregate between April 1, 2017 and December 15, 2018. After December 16, 2018, this proposed amendment will cost private entities an estimate of $55,300,000 in the aggregate.*

**REVISED FISCAL NOTE**
**PUBLIC COST**

**I. Department Title:** Title 13 - Department of Social Services
**Division Title:** Division 70 - MO HealthNet Division
**Chapter Title:** Chapter 20 – Pharmacy Programs

| | |
|---|---|
| **Rule Number and Name:** | 13 CSR 70-20.070 Drug Reimbursement Methodology |
| **Type of Rulemaking:** | Final Order of Rulemaking |

## II. SUMMARY OF FISCAL IMPACT

| Affected Agency or Political Subdivision | Estimated Cost of Compliance in the Aggregate |
|---|---|
| Missouri Department of Social Services-MO HealthNet | Annual estimated cost for SFY 2018: $0 |

## III. WORKSHEET

N/A

## IV. ASSUMPTIONS

MHD believes there is no fiscal impact to public entities.

## REVISED FISCAL NOTE
## PRIVATE COST

**I. Department Title:** 13 Department of Social Services
**Division Title:** 70 MO HealthNet Division
**Chapter Title:** 20 Pharmacy Program

| | |
|---|---|
| **Rule Number and Title:** | 13 CSR 70-20.070 Computer-Generated Drug Pricing Tape and Drug Reimbursement Methodology |
| **Type of Rulemaking:** | Final Order of Rulemaking |

## II. SUMMARY OF FISCAL IMPACT

| Estimate of the number of entities by class which would likely be affected by the adoption of the rule: | Classification by types of the business entities which would likely be affected: | Estimate in the aggregate as to the cost of compliance with the rule by the affected entities: |
|---|---|---|
| 1600 – Pharmacies<br>70 – Physicians<br>930 - Clinics | Pharmacies, Physicians, and Clinics | Between 4/1/17 and 12/15/18 the annual estimated reduction in payments to pharmacies, physicians, and clinics is $33,500,000 |
| 1600 – Pharmacies<br>70 – Physicians<br>930 - Clinics | Pharmacies, Physicians, and Clinics | After 12/16/18 the annual estimated reduction in payments to pharmacies, physicians, and clinics is $55,300,000 |

## III. WORKSHEET

Pharmacy claim reimbursement will follow a new hierarchy methodology. From April 1, 2017, through December 15, 2018, the methodology will be Federal Upper Limit (FUL) price; if there is no FUL, Missouri Maximum Allowed Cost (MAC); if no FUL or MAC, Wholesale Acquisition Cost (WAC) minus 3.1%, or the usual and customary charge submitted by the provider if it is lower than the chosen price (FUL, MAC, or WAC). It is anticipated the new methodology will reduce payments to pharmacies, physicians, and clinics by $33,500,000. This will also decrease payments made by MO HealthNet by $33,500,000.

Effective December 16, 2018, the methodology will be National Average Drug Acquisition Cost (NADAC); if there is no NADAC, Missouri Maximum Allowed Cost (MAC); if no NADAC or MAC, Wholesale Acquisition Cost (WAC), or the usual and customary charge submitted by the provider if it is lower than the chosen price (NADAC, MAC, or WAC). It is anticipated the new methodology will reduce payments to pharmacies, physicians, and clinics by $55,300,000 annually. This will also decrease payments made by MO HealthNet by $55,300,000 annually.

## IV. ASSUMPTIONS

New payment methodology was applied to the FY 2016 claim data.

**Title 19—DEPARTMENT OF HEALTH AND SENIOR SERVICES**
**Division 10—Office of the Director**
**Chapter 10—Vital Records**

## ORDER OF RULEMAKING

By the authority vested in the Missouri Department of Health and Senior Services under sections 193.035 and 193.045, RSMo 2016, and 193.128, RSMo Supp. 2018, the department amends a rule as follows:

**19 CSR 10-10.130** Missouri Adoptee Rights **is amended**.

A notice of proposed rulemaking containing the text of the proposed amendment was published in the *Missouri Register* on October 15, 2018 (43 MoReg 2982-2989). No changes have been made in the text of the proposed amendment, so it is not reprinted here. This proposed amendment becomes effective thirty (30) days after publication in the *Code of State Regulations*.

SUMMARY OF COMMENTS: No comments were received.

This section may contain notice of hearings, correction notices, public information notices, rule action notices, statements of actual costs, and other items required to be published in the *Missouri Register* by law.

## Title 19—DEPARTMENT OF HEALTH AND SENIOR SERVICES
## Division 60—Missouri Health Facilities Review Committee
## Chapter 50—Certificate of Need Program

### NOTIFICATION OF REVIEW: APPLICATION REVIEW SCHEDULE

The Missouri Health Facilities Review Committee has initiated review of the CON application listed below. A decision is tentatively scheduled for February 21, 2019. This application is available for public inspection at the address shown below.

**Date Filed**

**Project Number:** Project Name
City (County)
Cost, Description

**01/07/2019**

**#5669 HT:** Mercy Hospital St. Louis
St. Louis (St. Louis County)
$4,125,000, Replace Linear Accelerator

Any person wishing to request a public hearing for the purpose of commenting on this application must submit a written request to this effect, which must be received by February 10, 2019. All written requests and comments should be sent to—

Chairman
Missouri Health Facilities Review Committee
c/o Certificate of Need Program
3418 Knipp Drive, Suite F
PO Box 570
Jefferson City, MO 65102
For additional information contact Kayci Hoover-Doss at Kayci.hoover-doss@health.mo.gov.

The Secretary of State is required by sections 347.141 and 359.481, RSMo 2016, to publish dissolutions of limited liability companies and limited partnerships. The content requirements for the one-time publishing of these notices are prescribed by statute. This listing is published pursuant to these statutes. We request that documents submitted for publication in this section be submitted in camera ready 8 1/2" x 11" manuscript by email to adrules.dissolutions@sos.mo.gov.

## Notice of Dissolution To All Creditors of and Claimants Against SNAGTAGG LLC

On November 19, 2018, SNAGTAGG LLC, a Missouri limited liability company, filed its Notice of Winding Up with the Missouri Secretary of State. Dissolution was effective on December 19, 2018.

Said company requests that all persons and organizations who have claims against it present them immediately by letter to the corporation at:

SNAGTAGG LLC
Attn: James S. Gans
648 Trade Center Boulevard
Chesterfield, MO 63005

Or

Ann Bodewes Stephens, Esq.
Sandberg Phoenix & von Gontard P.C.
600 Washington Avenue, 15th Floor
St. Louis, MO 63101

All claims must include the name and address of the claimant; the amount claimed; the basis for the claim; and the date(s) on which the event(s) on which the claim is based occurred.

NOTICE: Because of the dissolution of SNAGTAGG LLC, any claims against it will be barred unless a proceeding to enforce the claim is commenced within the statutorily authorized timeframe after the publication date of the notices required by statute, whichever is published last.

## NOTICE OF WINDING UP FOR LIMITED LIABILITY COMPANY TO ALL CREDITORS OF AND CLAIMANTS AGAINST SALTY DOG SKIES LLC

Salty Dog Skies LLC, a Missouri limited liability company, filed its Notice of Winding Up for Limited Liability Company with the Missouri Secretary of State on December 26, 2018. Any and all claims against Salty Dog Skies LLC may be sent to Salty Dog Skies LLC, 130 Berry Manor Circle, St. Peters, MO 63376. Each claim must include: (i) the name, address, and telephone number of the claimant; (ii) amount of the claim; (iii) basis for the claim; (iv) documentation of the claim. A claim against Salty Dog Skies LLC will be barred unless a proceeding to enforce the claim is commenced within three (3) years after the publication of this notice.

**NOTICE OF WINDING UP AND DISSOLUTION OF LIMITED LIABILITY COMPANY TO ALL CREDITORS OF AND CLAIMANTS AGAINST CARROL WOOD WAY LLC**

On December 20, 2018, Carrol Wood Way, LLC, a Missouri limited liability company (the "Company"), filed its Notice of Winding Up and Articles of Termination of the Company with the Missouri Secretary of State to be effective December 20, 2018. The Company requests that all persons and organizations who have claims against the Company present them immediately by letter to Mr. Rick Baker, 9849 Sunset Greens Drive, Sunset Hills, MO 63127. All claims **must** include the name and address of the claimant, the amount claimed, the basis for and a description of the claim, and include copies of any supporting documentation. Any and all claims against the Company will be barred unless a proceeding to enforce such claim is commenced within three (3) years after the publication of this notice.

**Notice of Dissolution**
**To All Creditors of and**
**Claimants Against**
**COMMUNITY VOCATIONAL SCHOOLS OF LAS VEGAS, LLC**

On December 19, 2018, COMMUNITY VOCATIONAL SCHOOLS OF LAS VEGAS, LLC., a Missouri limited liability company, filed its Notice of Winding Up with the Missouri Secretary of State. Dissolution was effective on December 19, 2018.

Said company requests that all persons and organizations who have claims against it present them immediately by letter to the corporation at:

COMMUNITY VOCATIONAL SCHOOLS OF LAS VEGAS, LLC
Attn: JR&M, LLC
648 Trade Center Boulevard
Chesterfield, MO 63005

Or

Ann Bodewes Stephens, Esq.
Sandberg Phoenix & von Gontard P.C.
600 Washington Avenue, 15th Floor
St. Louis, MO 63101

All claims must include the name and address of the claimant; the amount claimed; the basis for the claim; and the date(s) on which the event(s) on which the claim is based occurred.

NOTICE: Because of the dissolution of COMMUNITY VOCATIONAL SCHOOLS OF LAS VEGAS, LLC, any claims against it will be barred unless a proceeding to enforce the claim is commenced within the statutorily authorized timeframe after the publication date of the notices required by statute, whichever is published last.

**NOTICE OF DISSOLUTION AND WINDING UP TO ALL CREDITORS OF AND CLAIMANTS AGAINST NTI LEASING COMPANY, L.L.C.**

On December 17, 2018, NTI Leasing Company, L.L.C., filed its Notice of Winding Up for Limited Liability Company and its Articles of Termination with the Missouri Secretary of State. The dissolution was effective December 31, 2018. You are hereby notified that if you believe you have a claim against NTI Leasing Company, L.L.C., you must submit a summary in writing of the circumstances surrounding your claim to the corporation at the following address:

NTI Leasing Company, L.L.C.
c/o Casey E. Elliott
Van Matre, Harrison, Hollis, Taylor
Elliott, and Hicks, P.C.
1103 East Broadway
Columbia, MO 65201

The summary of your claim must include the following information: (1) the name, address and telephone number of the claimant; (2) the amount of the claim; (3) the date on which the event on which the claim is based occurred; and (4) a brief description of the nature of the debt or the basis for the claim.

All claims against NTI Leasing Company, L.L.C., will be barred unless the proceeding to enforce the claim is commenced within two years after the publication of this notice.

**Notice of Winding Up of Limited Liability Company**
**To All Creditors of and**
**Claimants Against**
**CARRIE REDEVELOPMENT, LLC**

On December 19, 2018, CARRIE REDEVELOPMENT, LLC, a Missouri limited liability company, filed its Articles of Termination and Notice of Winding Up for Limited Liability Company with the Missouri Secretary of State, effective on **December 31, 2018.**

Said limited liability company requests that all persons and organizations who have claims against it present them immediately by letter to the company at:

CARRIE REDEVELOPMENT, LLC
Attn: Mary C. Kickham, Manager
14001 New Bedford Court
Chesterfield, MO 63017

With a copy to: Sandberg Phoenix & von Gontard, P.C.
Attn: Anthony J. Soukenik, Esq.
600 Washington Avenue, 15th Floor
St. Louis, MO 63101
(314) 231-3332

All claims must include the name and address of the claimant; the amount claimed; the basis for the claim; and the date(s) on which the event(s) on which the claim is based occurred.

NOTICE: Because of the notice of winding up of CARRIE REDEVELOPMENT, LLC, any claims against it will be barred unless a proceeding to enforce the claim is commenced within three (3) years after the publication date of the notices authorized by statute, whichever is published last.

## NOTICE OF DISSOLUTION OF LIMITED LIABILITY COMPANY TO ALL CREDITORS OF AND CLAIMANTS AGAINST LEXINGTON SQUARE, LLC

On December 14, 2018, Lexington Square, LLC, a Missouri limited liability company, filed its Notice of Winding Up for Limited Liability Company with the Missouri Secretary of State.

Said limited liability company requests that all persons and organizations who have claims against it present them by letter immediately to the company in care of: Rick J. Muenks, Attorney at Law, 3041 S. Kimbrough Avenue, Suite 106, Springfield, Missouri 65807. Claims must include name and address of claimant; amount of claim; basis of claim; and documentation of claim. Pursuant to Section 347.141 RSMo, any claim against Lexington Square, LLC, will be barred unless a proceeding to enforce the claim is commenced within three years after the publication of this notice.

## NOTICE OF WINDING UP OF LIMITED PARTNERSHIP

On this 4th day of December, 2018 **KOENIG WILLIAMSBURG PROPERTY, L.P.**, hereinafter referred to as ("**LIMITED PARTNERSHIP**") filed its Notice of Winding UP for a Limited Partnership with the Missouri Secretary of State.

All persons and organizations with claims against the Limited Partnership must submit a written summary of any and all claims against the Limited Partnership to ZOLLMANN LAW LLC, Attention: W. J. ZOLLMANN, III, 511 West Pearce Boulevard, Wentzville, Missouri 63385, which summary shall include the name, address and telephone of the Claimant; the amount of the claim; date(s) the claim accrued; a brief description of the nature and basis of the claim; and any documentation of the claim.

Claims against the Limited Partnership will be barred unless a proceeding to enforce the claim is commenced within three (3) years after the publication of this notice.

**NOTICE OF WINDING UP OF
LIMITED PARTNERSHIP**

On this 4th day of December, 2018 **KOENIG AUXVASSE PROPERTY, L.P.**, hereinafter referred to as ("**LIMITED PARTNERSHIP**") filed its Notice of Winding UP for a Limited Partnership with the Missouri Secretary of State.

All persons and organizations with claims against the Limited Partnership must submit a written summary of any and all claims against the Limited Partnership to ZOLLMANN LAW LLC, Attention: W. J. ZOLLMANN, III, 511 West Pearce Boulevard, Wentzville, Missouri 63385, which summary shall include the name, address and telephone of the Claimant; the amount of the claim; date(s) the claim accrued; a brief description of the nature and basis of the claim; and any documentation of the claim.

Claims against the Limited Partnership will be barred unless a proceeding to enforce the claim is commenced within three (3) years after the publication of this notice.

**NOTICE OF DISSOLUTION TO ALL CREDITORS OF AND CLAIMANTS AGAINST DIAMOND LITE, INC.**

On December 17, 2018, Diamond Lite, Inc., filed Articles of Dissolution by Voluntary Action with the Missouri Secretary of State. The dissolution was effective December 31, 2018.

Claims against the Corporation must be submitted to Diamond Lite, Inc., c/o Allen & Rector, P. C., Attorneys at Law, 135 Harwood Avenue, P. O. Box 1700, Lebanon, Missouri 65536.

Claims must include (1) the name, address and telephone number of the claimant, (2) the amount and date of the claim, and (3) a brief description of the basis of the claim, including documentation.

NOTICE: All claims will be barred unless a proceeding to enforce the claim is commenced within two years after the date of the publication of this notice.

## NOTICE OF DISSOLUTION OF LIMITED LIABILITY COMPANY TO ALL CREDITORS OF AND CLAIMANTS AGAINST CASA BELLA DEVELOPMENT, LLC

On December 14, 2018, Casa Bella Development, LLC, a Missouri limited liability company, filed its Notice of Winding Up for Limited Liability Company with the Missouri Secretary of State.

Said limited liability company requests that all persons and organizations who have claims against it present them by letter immediately to the company in care of: Rick J. Muenks, Attorney at Law, 3041 S. Kimbrough Avenue, Suite 106, Springfield, Missouri 65807. Claims must include name and address of claimant; amount of claim; basis of claim; and documentation of claim. Pursuant to Section 347.141 RSMo, any claim against Casa Bella Development, LLC, will be barred unless a proceeding to enforce the claim is commenced within three years after the publication of this notice.

This cumulative table gives you the latest status of rules. It contains citations of rulemakings adopted or proposed after deadline for the monthly Update Service to the *Code of State Regulations*, citations are to volume and page number in the *Missouri Register*, except for material in this issue. The first number in the table cite refers to the volume number or the publication year—43 (2018) and 44 (2019). MoReg refers to *Missouri Register* and the numbers refer to a specific *Register* page, R indicates a rescission, W indicates a withdrawal, S indicates a statement of actual cost, T indicates an order terminating a rule, N.A. indicates not applicable, RAN indicates a rule action notice, RUC indicates a rule under consideration, and F indicates future effective date.

| Rule Number | Agency | Emergency | Proposed | Order | In Addition |
|---|---|---|---|---|---|
| | **OFFICE OF ADMINISTRATION** | | | | |
| 1 CSR 10 | State Officials' Salary Compensation Schedule | | | | 42 MoReg 1849<br>43 MoReg 3648 |
| 1 CSR 10-3.010 | Commissioner of Administration | | 43 MoReg 3205 | | |
| 1 CSR 10-4.010 | Commissioner of Administration | | 43 MoReg 3208R | | |
| 1 CSR 10-5.010 | Commissioner of Administration | | 43 MoReg 3208 | | |
| 1 CSR 10-7.010 | Commissioner of Administration | | 43 MoReg 3209 | | |
| 1 CSR 10-8.010 | Commissioner of Administration | | 43 MoReg 3210 | | |
| 1 CSR 10-9.010 | Commissioner of Administration | | 43 MoReg 3210R | | |
| 1 CSR 10-11.010 | Commissioner of Administration | | 43 MoReg 3211 | | |
| 1 CSR 10-11.020 | Commissioner of Administration | | 43 MoReg 3214R | | |
| 1 CSR 10-11.030 | Commissioner of Administration | | 43 MoReg 3214R | | |
| 1 CSR 10-13.010 | Commissioner of Administration | | 43 MoReg 3214R | | |
| 1 CSR 10-16.010 | Commissioner of Administration | | 43 MoReg 3215 | | |
| 1 CSR 10-18.010 | Commissioner of Administration | | 43 MoReg 2975R | 44 MoReg 376R | |
| 1 CSR 20-1.010 | Personnel Advisory Board and Division of Personnel | 43 MoReg 2735 | 43 MoReg 2782 | 44 MoReg 376 | |
| 1 CSR 20-1.020 | Personnel Advisory Board and Division of Personnel | 43 MoReg 2736 | 43 MoReg 2783 | 44 MoReg 376 | |
| 1 CSR 20-1.030 | Personnel Advisory Board and Division of Personnel | | 43 MoReg 2787R | 44 MoReg 376R | |
| 1 CSR 20-1.040 | Personnel Advisory Board and Division of Personnel | 43 MoReg 2740 | 43 MoReg 2787 | 44 MoReg 377 | |
| 1 CSR 20-1.045 | Personnel Advisory Board and Division of Personnel | 43 MoReg 2741 | 43 MoReg 2788 | 44 MoReg 377 | |
| 1 CSR 20-1.050 | Personnel Advisory Board and Division of Personnel | | 43 MoReg 2790R | 44 MoReg 377R | |
| 1 CSR 20-2.010 | Personnel Advisory Board and Division of Personnel | 43 MoReg 2742 | 43 MoReg 2790 | 44 MoReg 377 | |
| 1 CSR 20-2.015 | Personnel Advisory Board and Division of Personnel | 43 MoReg 2744 | 43 MoReg 2791 | 44 MoReg 377 | |
| 1 CSR 20-2.020 | Personnel Advisory Board and Division of Personnel | 43 MoReg 2747 | 43 MoReg 2795 | 44 MoReg 378 | |
| 1 CSR 20-3.010 | Personnel Advisory Board and Division of Personnel | 43 MoReg 2749 | 43 MoReg 2797 | 44 MoReg 378 | |
| 1 CSR 20-3.020 | Personnel Advisory Board and Division of Personnel | 43 MoReg 2753 | 43 MoReg 2800 | 44 MoReg 378 | |
| 1 CSR 20-3.030 | Personnel Advisory Board and Division of Personnel | 43 MoReg 2754 | 43 MoReg 2802 | 44 MoReg 378 | |
| 1 CSR 20-3.040 | Personnel Advisory Board and Division of Personnel | 43 MoReg 2757 | 43 MoReg 2805 | 44 MoReg 379 | |
| 1 CSR 20-3.050 | Personnel Advisory Board and Division of Personnel | 43 MoReg 2758R | 43 MoReg 2806R | 44 MoReg 379R | |
| 1 CSR 20-3.070 | Personnel Advisory Board and Division of Personnel | 43 MoReg 2759 | 43 MoReg 2806 | 44 MoReg 379 | |
| 1 CSR 20-3.080 | Personnel Advisory Board and Division of Personnel | 43 MoReg 2763 | 43 MoReg 2810 | 44 MoReg 380 | |
| 1 CSR 20-4.010 | Personnel Advisory Board and Division of Personnel | 43 MoReg 2764R | 43 MoReg 2811R | 44 MoReg 380R | |
| 1 CSR 20-4.020 | Personnel Advisory Board and Division of Personnel | 43 MoReg 2764 | 43 MoReg 2811 | 44 MoReg 380 | |
| 1 CSR 30-2.020 | Division of Facilities Management, Design and Construction | | 43 MoReg 2813R | | |
| 1 CSR 30-2.030 | Division of Facilities Management, Design and Construction | | 43 MoReg 2813R | | |
| 1 CSR 30-2.040 | Division of Facilities Management, Design and Construction | | 43 MoReg 2813R | | |
| 1 CSR 30-2.050 | Division of Facilities Management, Design and Construction | | 43 MoReg 2814R | | |
| 1 CSR 30-3.010 | Division of Facilities Management, Design and Construction | | 43 MoReg 2814R | | |
| 1 CSR 30-3.020 | Division of Facilities Management, Design and Construction | | 43 MoReg 2814R | | |
| 1 CSR 30-3.025 | Division of Facilities Management, Design and Construction | | 44 MoReg 38 | | |
| 1 CSR 30-3.030 | Division of Facilities Management, Design and Construction | | 43 MoReg 3215 | | |
| 1 CSR 30-3.035 | Division of Facilities Management, Design and Construction | | 43 MoReg 2814R | | |
| 1 CSR 30-3.040 | Division of Facilities Management, Design and Construction | | 43 MoReg 3218 | | |
| 1 CSR 30-3.050 | Division of Facilities Management, Design and Construction | | 43 MoReg 3221 | | |
| 1 CSR 30-3.060 | Division of Facilities Management, Design and Construction | | 44 MoReg 45R | | |
| 1 CSR 30-4.010 | Division of Facilities Management, Design and Construction | | 43 MoReg 2815R | | |
| 1 CSR 30-4.020 | Division of Facilities Management, Design and Construction | | 44 MoReg 45 | | |

| Rule Number | Agency | Emergency | Proposed | Order | In Addition |
|---|---|---|---|---|---|
| 1 CSR 30-4.030 | Division of Facilities Management, Design and Construction | | 44 MoReg 49R | | |
| 1 CSR 30-4.040 | Division of Facilities Management, Design and Construction | | 44 MoReg 49R | | |
| 1 CSR 35-1.050 | Division of Facilities Management | | 43 MoReg 3222 | | |
| 1 CSR 35-2.010 | Division of Facilities Management | | 44 MoReg 50R | | |
| 1 CSR 35-2.020 | Division of Facilities Management | | 44 MoReg 50R | | |
| 1 CSR 35-2.030 | Division of Facilities Management | | 44 MoReg 50 | | |
| 1 CSR 35-2.040 | Division of Facilities Management | | 44 MoReg 52R | | |
| 1 CSR 35-2.050 | Division of Facilities Management | | 44 MoReg 52R | | |
| 1 CSR 40-1.010 | Purchasing and Materials Management | | 43 MoReg 3226R | | |
| 1 CSR 40-1.030 | Purchasing and Materials Management | | 43 MoReg 3227R | | |
| 1 CSR 40-1.040 | Purchasing and Materials Management | | 43 MoReg 3227R | | |
| 1 CSR 40-1.050 | Purchasing and Materials Management | 43 MoReg 2967 | 43 MoReg 3227 | | |
| 1 CSR 40-1.090 | Purchasing and Materials Management | | 43 MoReg 3237R | | |
| | **DEPARTMENT OF AGRICULTURE** | | | | |
| 2 CSR 60-1.010 | Grain Inspection and Warehousing | | 43 MoReg 1419 | 43 MoReg 3602 | |
| 2 CSR 60-2.010 | Grain Inspection and Warehousing | | 43 MoReg 1420R | 43 MoReg 3602R | |
| 2 CSR 60-4.016 | Grain Inspection and Warehousing | | 43 MoReg 1420R | 43 MoReg 3602R | |
| 2 CSR 60-4.045 | Grain Inspection and Warehousing | | 43 MoReg 1420R | 43 MoReg 3602R | |
| 2 CSR 60-4.060 | Grain Inspection and Warehousing | | 43 MoReg 1420R | 43 MoReg 3602R | |
| 2 CSR 60-4.070 | Grain Inspection and Warehousing | | 43 MoReg 1421R | 43 MoReg 3603R | |
| 2 CSR 60-4.080 | Grain Inspection and Warehousing | | 43 MoReg 1421 | 43 MoReg 3603 | |
| 2 CSR 60-4.090 | Grain Inspection and Warehousing | | 43 MoReg 1421R | 43 MoReg 3603R | |
| 2 CSR 60-4.120 | Grain Inspection and Warehousing | | 43 MoReg 1422 | 43 MoReg 3603 | |
| 2 CSR 60-4.130 | Grain Inspection and Warehousing | | 43 MoReg 1422 | 43 MoReg 3603 | |
| 2 CSR 60-4.170 | Grain Inspection and Warehousing | | 43 MoReg 1422 | 43 MoReg 3603 | |
| 2 CSR 60-5.040 | Grain Inspection and Warehousing | | 43 MoReg 1422R | 43 MoReg 3604R | |
| 2 CSR 70-1.010 | Plant Industries | | 43 MoReg 1549 | 43 MoReg 3820 | |
| 2 CSR 70-10.080 | Plant Industries | | 43 MoReg 1550 | 43 MoReg 3820 | |
| 2 CSR 70-11.020 | Plant Industries | | 43 MoReg 1554R | 43 MoReg 3820R | |
| 2 CSR 70-11.030 | Plant Industries | | 43 MoReg 1554R | 43 MoReg 3820R | |
| 2 CSR 70-11.050 | Plant Industries | | 43 MoReg 1555R | 43 MoReg 3821R | |
| 2 CSR 70-12.010 | Plant Industries | | 43 MoReg 1555R | 43 MoReg 3821R | |
| 2 CSR 70-15.035 | Plant Industries | | 43 MoReg 1555R | 43 MoReg 3821R | |
| 2 CSR 70-15.045 | Plant Industries | | 43 MoReg 1555 | 43 MoReg 3821 | |
| 2 CSR 70-16.010 | Plant Industries | | 43 MoReg 1556R | 43 MoReg 3821R | |
| 2 CSR 70-16.015 | Plant Industries | | 43 MoReg 1556R | 43 MoReg 3821R | |
| 2 CSR 70-16.020 | Plant Industries | | 43 MoReg 1556R | 43 MoReg 3821R | |
| 2 CSR 70-16.025 | Plant Industries | | 43 MoReg 1556R | 43 MoReg 3822R | |
| 2 CSR 70-16.030 | Plant Industries | | 43 MoReg 1557R | 43 MoReg 3822R | |
| 2 CSR 70-16.035 | Plant Industries | | 43 MoReg 1557R | 43 MoReg 3822R | |
| 2 CSR 70-16.040 | Plant Industries | | 43 MoReg 1557R | 43 MoReg 3822R | |
| 2 CSR 70-16.045 | Plant Industries | | 43 MoReg 1558R | 43 MoReg 3822R | |
| 2 CSR 70-16.050 | Plant Industries | | 43 MoReg 1558R | 43 MoReg 3822R | |
| 2 CSR 70-16.055 | Plant Industries | | 43 MoReg 1558R | 43 MoReg 3823R | |
| 2 CSR 70-16.060 | Plant Industries | | 43 MoReg 1558R | 43 MoReg 3823R | |
| 2 CSR 70-16.065 | Plant Industries | | 43 MoReg 1559R | 43 MoReg 3823R | |
| 2 CSR 70-16.070 | Plant Industries | | 43 MoReg 1559R | 43 MoReg 3823R | |
| 2 CSR 70-16.075 | Plant Industries | | 43 MoReg 1559R | 43 MoReg 3823R | |
| 2 CSR 70-17.010 | Plant Industries | | 44 MoReg 52 | | |
| 2 CSR 70-17.020 | Plant Industries | | 44 MoReg 53 | | |
| 2 CSR 70-17.030 | Plant Industries | | 44 MoReg 57 | | |
| 2 CSR 70-17.040 | Plant Industries | | 44 MoReg 59 | | |
| 2 CSR 70-17.050 | Plant Industries | | 44 MoReg 59 | | |
| 2 CSR 70-17.060 | Plant Industries | | 44 MoReg 60 | | |
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| 2 CSR 70-17.100 | Plant Industries | | 44 MoReg 68 | | |
| 2 CSR 70-17.110 | Plant Industries | | 44 MoReg 70 | | |
| 2 CSR 70-17.120 | Plant Industries | | 44 MoReg 71 | | |
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| 2 CSR 70-35.010 | Plant Industries | | 43 MoReg 1560 | 43 MoReg 3824 | |
| 2 CSR 70-35.031 | Plant Industries | | 43 MoReg 1560R | 43 MoReg 3824R | |
| 2 CSR 70-40.005 | Plant Industries | | 43 MoReg 1560R | 43 MoReg 3824W | |
| 2 CSR 70-40.015 | Plant Industries | | 43 MoReg 1561R | 43 MoReg 3824W | |
| 2 CSR 70-40.016 | Plant Industries | | 43 MoReg 1561R | 43 MoReg 3824W | |
| 2 CSR 70-40.017 | Plant Industries | | 43 MoReg 1561R | 43 MoReg 3824W | |
| 2 CSR 70-40.025 | Plant Industries | | 43 MoReg 1561R | 43 MoReg 3825W | |
| 2 CSR 70-40.040 | Plant Industries | | 43 MoReg 1562R | 43 MoReg 3825W | |
| 2 CSR 70-40.050 | Plant Industries | | 43 MoReg 1562R | 43 MoReg 3825W | |
| 2 CSR 70-40.055 | Plant Industries | | 43 MoReg 1562R | 43 MoReg 3825W | |
| 2 CSR 90-10 | Weights, Measures and Consumer Protection | | | | 42 MoReg 1203 |
| 2 CSR 90-10.016 | Weights, Measures and Consumer Protection | | 43 MoReg 1998R | 43 MoReg 3825R | |
| 2 CSR 90-11.010 | Weights, Measures and Consumer Protection | | 43 MoReg 1998 | 43 MoReg 3825 | |
| 2 CSR 90-20.040 | Weights, Measures and Consumer Protection | | 43 MoReg 1999 | 43 MoReg 3826 | |
| 2 CSR 90-21.010 | Weights, Measures and Consumer Protection | | 43 MoReg 1999 | 43 MoReg 3826 | |
| 2 CSR 90-22.140 | Weights, Measures and Consumer Protection | | 43 MoReg 2001 | 43 MoReg 3826 | |
| 2 CSR 90-23.010 | Weights, Measures and Consumer Protection | | 43 MoReg 2001 | 43 MoReg 3826 | |
| 2 CSR 90-25.010 | Weights, Measures and Consumer Protection | | 43 MoReg 2002 | 43 MoReg 3826 | |
| 2 CSR 90-30.050 | Weights, Measures and Consumer Protection | | 43 MoReg 2002 | 43 MoReg 3827 | |
| 2 CSR 90-30.070 | Weights, Measures and Consumer Protection | | 43 MoReg 2004 | 43 MoReg 3827 | |
| 2 CSR 90-30.080 | Weights, Measures and Consumer Protection | | 43 MoReg 2005 | 43 MoReg 3827 | |
| 2 CSR 90-30.090 | Weights, Measures and Consumer Protection | | 43 MoReg 2006 | 43 MoReg 3827 | |
| 2 CSR 90-30.100 | Weights, Measures and Consumer Protection | | 43 MoReg 2006 | 43 MoReg 3827 | |
| 2 CSR 90-36.010 | Weights, Measures and Consumer Protection | | 43 MoReg 2007 | 43 MoReg 3827 | |
| 2 CSR 90-38.010 | Weights, Measures and Consumer Protection | | 43 MoReg 2012R | | |
| 2 CSR 90-38.020 | Weights, Measures and Consumer Protection | | 43 MoReg 2012R | | |
| 2 CSR 90-38.030 | Weights, Measures and Consumer Protection | | 43 MoReg 2012R | | |
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| 2 CSR 100-2.020 | Missouri Agricultural and Small Business Development Authority | | 43 MoReg 1563R | 43 MoReg 3828W | |
| 2 CSR 100-2.030 | Missouri Agricultural and Small Business Development Authority | | 43 MoReg 1563R | 43 MoReg 3828W | |
| 2 CSR 100-2.040 | Missouri Agricultural and Small Business Development Authority | | 43 MoReg 1563R | 43 MoReg 3828W | |
| 2 CSR 100-2.050 | Missouri Agricultural and Small Business Development Authority | | 43 MoReg 1564R | 43 MoReg 3828W | |
| 2 CSR 100-3.010 | Missouri Agricultural and Small Business Development Authority | | 43 MoReg 1564R | 43 MoReg 3829R | |
| 2 CSR 100-3.020 | Missouri Agricultural and Small Business Development Authority | | 43 MoReg 1564R | 43 MoReg 3829R | |
| 2 CSR 100-3.030 | Missouri Agricultural and Small Business Development Authority | | 43 MoReg 1564R | 43 MoReg 3829R | |
| 2 CSR 100-3.040 | Missouri Agricultural and Small Business Development Authority | | 43 MoReg 1565R | 43 MoReg 3829R | |
| 2 CSR 100-3.050 | Missouri Agricultural and Small Business Development Authority | | 43 MoReg 1565R | 43 MoReg 3829R | |
| 2 CSR 100-4.010 | Missouri Agricultural and Small Business Development Authority | | 43 MoReg 1565R | 43 MoReg 3829R | |
| 2 CSR 100-4.020 | Missouri Agricultural and Small Business Development Authority | | 43 MoReg 1565R | 43 MoReg 3830R | |
| 2 CSR 100-4.030 | Missouri Agricultural and Small Business Development Authority | | 43 MoReg 1566R | 43 MoReg 3830R | |
| 2 CSR 100-4.040 | Missouri Agricultural and Small Business Development Authority | | 43 MoReg 1566R | 43 MoReg 3830R | |
| 2 CSR 100-4.050 | Missouri Agricultural and Small Business Development Authority | | 43 MoReg 1566R | 43 MoReg 3830R | |
| 2 CSR 100-10.010 | Missouri Agricultural and Small Business Development Authority | | 43 MoReg 1566 | 43 MoReg 3830 | |
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| 3 CSR 10-4.200 | Conservation Commission | | 43 MoReg 2815 | 44 MoReg 381 | |
| 3 CSR 10-5.205 | Conservation Commission | | 43 MoReg 2816 | 44 MoReg 382 | |
| 3 CSR 10-5.215 | Conservation Commission | | 43 MoReg 2822 | 44 MoReg 383 | |
| 3 CSR 10-5.222 | Conservation Commission | | 43 MoReg 2824 | 44 MoReg 383 | |
| 3 CSR 10-5.600 | Conservation Commission | | 43 MoReg 2824 | 44 MoReg 384 | |
| 3 CSR 10-5.605 | Conservation Commission | | 43 MoReg 2824 | 44 MoReg 384 | |
| 3 CSR 10-6.415 | Conservation Commission | | 43 MoReg 2824 | 44 MoReg 384 | |
| 3 CSR 10-7.405 | Conservation Commission | | 43 MoReg 2825 | 44 MoReg 384 | |
| 3 CSR 10-7.410 | Conservation Commission | | 43 MoReg 2825 | 44 MoReg 385 | |
| 3 CSR 10-7.431 | Conservation Commission | | 43 MoReg 2825 | 44 MoReg 385 | |
| 3 CSR 10-7.433 | Conservation Commission | | 43 MoReg 2828 | 44 MoReg 386 | |
| 3 CSR 10-7.434 | Conservation Commission | | 43 MoReg 2828 | 44 MoReg 386 | |
| 3 CSR 10-7.455 | Conservation Commission | | 43 MoReg 2829 | 44 MoReg 387 | 43 MoReg 93<br>44 MoReg 445 |
| 3 CSR 10-7.600 | Conservation Commission | | 43 MoReg 2829 | 44 MoReg 387 | |
| 3 CSR 10-9.220 | Conservation Commission | | 44 MoReg 273 | | |
| 3 CSR 10-10.715 | Conservation Commission | | 43 MoReg 2833 | 44 MoReg 387 | |
| 3 CSR 10-10.768 | Conservation Commission | | 43 MoReg 2833 | 44 MoReg 388 | |
| 3 CSR 10-11.115 | Conservation Commission | | 43 MoReg 2833 | 44 MoReg 388 | |
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| 3 CSR 10-11.125 | Conservation Commission | | 43 MoReg 2835 | 44 MoReg 388 | |
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| 3 CSR 10-11.135 | Conservation Commission | | 43 MoReg 2837 | 44 MoReg 389 | |
| 3 CSR 10-11.140 | Conservation Commission | | 43 MoReg 2837 | 44 MoReg 389 | |
| 3 CSR 10-11.145 | Conservation Commission | | 43 MoReg 2838 | 44 MoReg 389 | |
| 3 CSR 10-11.155 | Conservation Commission | | 43 MoReg 2838 | 44 MoReg 389 | |
| 3 CSR 10-11.160 | Conservation Commission | | 43 MoReg 2838 | 44 MoReg 389 | |
| 3 CSR 10-11.180 | Conservation Commission | | 43 MoReg 2839 | 44 MoReg 389 | |
| 3 CSR 10-11.184 | Conservation Commission | | 43 MoReg 2845 | 44 MoReg 391 | |
| 3 CSR 10-11.185 | Conservation Commission | | 43 MoReg 2845 | 44 MoReg 391 | |
| 3 CSR 10-11.186 | Conservation Commission | | 43 MoReg 2849 | 44 MoReg 392 | |
| 3 CSR 10-11.200 | Conservation Commission | | 43 MoReg 2849 | 44 MoReg 392 | |
| 3 CSR 10-11.205 | Conservation Commission | | 43 MoReg 2850 | 44 MoReg 393 | |
| 3 CSR 10-11.210 | Conservation Commission | | 43 MoReg 2851 | 44 MoReg 393 | |
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| | **DEPARTMENT OF ECONOMIC DEVELOPMENT** | | | | |
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| 4 CSR 80-2.010 | Division of Economic Development Programs* | | 43 MoReg 3059R | | |
| 4 CSR 80-2.020 | Division of Economic Development Programs* | | 43 MoReg 3059R | | |
| 4 CSR 80-2.030 | Division of Economic Development Programs* | | 43 MoReg 3060R | | |
| 4 CSR 80-5.010 | Division of Economic Development Programs* | | 43 MoReg 3060 | | |
| 4 CSR 80-5.020 | Division of Economic Development Programs* | | 43 MoReg 3061R | | |
| 4 CSR 80-7.010 | Division of Economic Development Programs* | | 43 MoReg 3061R | | |
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| 4 CSR 85-2.015 | Division of Business and Community Services | | 43 MoReg 3062R | | |
| 4 CSR 85-2.020 | Division of Business and Community Services | | 43 MoReg 3063 | | |
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| 4 CSR 85-2.040 | Division of Business and Community Services | | 43 MoReg 3065R | | |
| 4 CSR 85-6.010 | Division of Business and Community Services | | 43 MoReg 3065R | | |
| 4 CSR 85-7.010 | Division of Business and Community Services | | 43 MoReg 3065R | | |
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| 4 CSR 195-3.020 | Division of Workforce Development | | 43 MoReg 3067R | | |
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| 4 CSR 240-2.010 | Public Service Commission | | 43 MoReg 3762 | | |
| 4 CSR 240-2.070 | Public Service Commission | | 43 MoReg 3762 | | |
| 4 CSR 240-2.120 | Public Service Commission | | 43 MoReg 3763 | | |
| 4 CSR 240-2.205 | Public Service Commission | | 43 MoReg 3763 | | |
| 4 CSR 240-3.010 | Public Service Commission | | 43 MoReg 3764 | | |
| 4 CSR 240-3.015 | Public Service Commission | | 43 MoReg 3764R | | |
| 4 CSR 240-3.020 | Public Service Commission | | 43 MoReg 3764R | | |
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| 4 CSR 240-3.110 | Public Service Commission | | 43 MoReg 1567R | 43 MoReg 3830R | |
| 4 CSR 240-3.115 | Public Service Commission | | 43 MoReg 1567R | 43 MoReg 3831R | |
| 4 CSR 240-3.120 | Public Service Commission | | 43 MoReg 1567R | 43 MoReg 3831R | |
| 4 CSR 240-3.125 | Public Service Commission | | 43 MoReg 1568R | 43 MoReg 3831R | |
| 4 CSR 240-3.145 | Public Service Commission | | 43 MoReg 3766R | | |
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| 4 CSR 240-3.165 | Public Service Commission | | 43 MoReg 1568R | 43 MoReg 3832R | |
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| 4 CSR 240-3.210 | Public Service Commission | | 43 MoReg 1569R | 43 MoReg 3832R | |
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| 4 CSR 240-3.220 | Public Service Commission | | 43 MoReg 1569R | 43 MoReg 3833R | |
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| 4 CSR 240-3.235 | Public Service Commission | | 44 MoReg 71R | | |
| 4 CSR 240-3.245 | Public Service Commission | | 43 MoReg 1570R | 43 MoReg 3833R | |
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| 4 CSR 240-3.290 | Public Service Commission | | 43 MoReg 1571R | 43 MoReg 3834R | |
| 4 CSR 240-3.295 | Public Service Commission | | 43 MoReg 1572R | 43 MoReg 3834R | |
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| 4 CSR 240-3.315 | Public Service Commission | | 43 MoReg 1572R | 43 MoReg 3835R | |
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| 4 CSR 240-3.415 | Public Service Commission | | 43 MoReg 1575R | 43 MoReg 3837R | |
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| 4 CSR 240-3.605 | Public Service Commission | | 43 MoReg 1576R | 43 MoReg 3838R | |
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| 4 CSR 240-3.615 | Public Service Commission | | 43 MoReg 1577R | 43 MoReg 3838R | |
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| 4 CSR 240-3.640 | Public Service Commission | | 43 MoReg 1577R | 43 MoReg 3839R | |
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| 4 CSR 240-10.040 | Public Service Commission | | 43 MoReg 3768 | | |
| 4 CSR 240-10.085 | Public Service Commission | | 43 MoReg 1424 | 43 MoReg 3839 | |
| 4 CSR 240-10.095 | Public Service Commission | | 43 MoReg 1425 | 43 MoReg 3842 | |
| 4 CSR 240-10.105 | Public Service Commission | | 43 MoReg 1578 | 43 MoReg 3845 | |
| 4 CSR 240-10.115 | Public Service Commission | | 43 MoReg 1578 | 43 MoReg 3845 | |
| 4 CSR 240-10.125 | Public Service Commission | | 43 MoReg 1579 | 43 MoReg 3846 | |
| 4 CSR 240-10.135 | Public Service Commission | | 43 MoReg 1579 | 43 MoReg 3846 | |
| 4 CSR 240-10.145 | Public Service Commission | | 43 MoReg 1580 | 43 MoReg 3846 | |
| 4 CSR 240-13.010 | Public Service Commission | | 43 MoReg 3768 | | |
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| 4 CSR 240-20.090 | Public Service Commission | | 43 MoReg 1426 | 43 MoReg 3847 | |
| 4 CSR 240-20.105 | Public Service Commission | | 43 MoReg 3776 | | |
| 4 CSR 240-40.020 | Public Service Commission | | 43 MoReg 1581 | 43 MoReg 3860 | |
| 4 CSR 240-40.030 | Public Service Commission | | 43 MoReg 1583 | 43 MoReg 3861 | |
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| 4 CSR 240-40.080 | Public Service Commission | | 43 MoReg 1596 | 43 MoReg 3861 | |
| 4 CSR 240-40.085 | Public Service Commission | | 44 MoReg 72 | | |
| 4 CSR 240-40.090 | Public Service Commission | | 44 MoReg 73 | | |
| 4 CSR 340-2 | Division of Energy | | | | 43 MoReg 15<br>43 MoReg 3869 |
| | **DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION** | | | | |
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| 5 CSR 20-100.160 | Division of Learning Services | | 43 MoReg 3068 | | |
| 5 CSR 20-100.190 | Division of Learning Services | | 43 MoReg 3780 | | |
| 5 CSR 20-100.200 | Division of Learning Services | | 43 MoReg 3070 | | |
| 5 CSR 20-100.260 | Division of Learning Services | | 44 MoReg 74 | | |
| 5 CSR 20-100.300 | Division of Learning Services<br>*(Changed from 5 CSR 20-600.120)* | | | | 43 MoReg 3651 |

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| 5 CSR 20-100.310 | Division of Learning Services<br>*(Changed from 5 CSR 20-600.130)* | | | | 43 MoReg 3651 |
| 5 CSR 20-100.320 | Division of Learning Services<br>*(Changed from 5 CSR 20-600.140)* | | | | 43 MoReg 3651 |
| 5 CSR 20-100.330 | Division of Learning Services<br>*(Changed from 5 CSR 20-600.110)* | | 44 MoReg 79 | | |
| 5 CSR 20-300.140 | Division of Learning Services | | 43 MoReg 252R<br>43 MoReg 2013R | 43 MoReg 3604R | |
| 5 CSR 20-400.510 | Division of Learning Services | | 43 MoReg 2014 | 43 MoReg 3604 | |
| 5 CSR 20-400.520 | Division of Learning Services | | 43 MoReg 2015 | 43 MoReg 3605 | |
| 5 CSR 20-400.560 | Division of Learning Services | | 43 MoReg 2016 | 43 MoReg 3605 | |
| 5 CSR 20-400.640 | Division of Learning Services | | 42 MoReg 1581<br>43 MoReg 2017 | 43 MoReg 3607 | |
| 5 CSR 20-500.110 | Division of Learning Services | | 43 MoReg 3780R | | |
| 5 CSR 20-600.110 | Division of Learning Services<br>*(Changed to 5 CSR 20-100.330)* | | 44 MoReg 79 | | |
| 5 CSR 20-600.120 | Division of Learning Services<br>*(Changed to 5 CSR 20-100.300)* | | | | 43 MoReg 3651 |
| 5 CSR 20-600.130 | Division of Learning Services<br>*(Changed to 5 CSR 20-100.310)* | | | | 43 MoReg 3651 |
| 5 CSR 20-600.140 | Division of Learning Services<br>*(Changed to 5 CSR 20-100.320)* | | | | 43 MoReg 3651 |
| 5 CSR 30-261.010 | Division of Financial and Administrative Services | | 44 MoReg 79 | | |
| 5 CSR 30-345.030 | Division of Financial and Administrative Services | | 43 MoReg 3071 | | |
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| 6 CSR 10-4.010 | Commissioner of Higher Education | | 43 MoReg 123<br>43 MoReg 3474 | | |
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| 7 CSR | Department of Transportation | | | | 41 MoReg 845 |
| 7 CSR 10-4.020 | Missouri Highways and Transportation Commission | | 44 MoReg 274 | | |
| 7 CSR 10-19.010 | Missouri Highways and Transportation Commission | | 42 MoReg 93R | | |
| | **DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS** | | | | |
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| 8 CSR 30-1.010 | Division of Labor Standards | | 43 MoReg 2021 | 43 MoReg 3862 | |
| 8 CSR 30-2.010 | Division of Labor Standards | | 43 MoReg 2021 | 43 MoReg 3862 | |
| 8 CSR 30-2.020 | Division of Labor Standards | | 43 MoReg 2021 | 43 MoReg 3862 | |
| 8 CSR 30-3.010 | Division of Labor Standards | 44 MoReg 5 | 43 MoReg 2028<br>44 MoReg 81 | 43 MoReg 3862W | |
| 8 CSR 30-3.020 | Division of Labor Standards | | 43 MoReg 2029 | 43 MoReg 3862W | |
| 8 CSR 30-3.030 | Division of Labor Standards | 44 MoReg 6 | 43 MoReg 2030<br>44 MoReg 82 | 43 MoReg 3863W | |
| 8 CSR 30-3.040 | Division of Labor Standards | 44 MoReg 7 | 43 MoReg 2031<br>44 MoReg 83 | 43 MoReg 3863W | |
| 8 CSR 30-3.050 | Division of Labor Standards | 44 MoReg 7 | 43 MoReg 2031R<br>44 MoReg 83 | 43 MoReg 3863W | |
| 8 CSR 30-3.060 | Division of Labor Standards | 44 MoReg 8 | 43 MoReg 2031<br>44 MoReg 83 | 43 MoReg 3863W | |
| 8 CSR 30-4.010 | Division of Labor Standards | | 43 MoReg 2034 | 43 MoReg 3863 | |
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| 8 CSR 30-5.010 | Division of Labor Standards | | 43 MoReg 2037 | 43 MoReg 3864W | |
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| | **DEPARTMENT OF MENTAL HEALTH** | | | | |
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| 9 CSR 10-5.240 | Director, Department of Mental Health<br>*(Changed to 9 CSR 10-7.035)* | | 43 MoReg 2975 | | |
| 9 CSR 10-7.010 | Director, Department of Mental Health | | 43 MoReg 3781 | | |
| 9 CSR 10-7.020 | Director, Department of Mental Health | | 43 MoReg 3786 | | |
| 9 CSR 10-7.030 | Director, Department of Mental Health | | 43 MoReg 3788 | | |
| 9 CSR 10-7.035 | Director, Department of Mental Health<br>*(Changed from 9 CSR 10-5.240)* | | 43 MoReg 2975 | | |
| 9 CSR 10-7.040 | Director, Department of Mental Health | | 43 MoReg 3794 | | |
| 9 CSR 10-7.050 | Director, Department of Mental Health | | 43 MoReg 3795 | | |
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| 9 CSR 10-7.120 | Director, Department of Mental Health | | 43 MoReg 3802 | | |
| 9 CSR 10-7.130 | Director, Department of Mental Health | | 43 MoReg 3805 | | |
| | **DEPARTMENT OF NATURAL RESOURCES** | | | | |
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| 10 CSR 10-2.215 | Air Conservation Commission | | 43 MoReg 1015R | 43 MoReg 3607R | |
| 10 CSR 10-2.230 | Air Conservation Commission | | 43 MoReg 2042 | This Issue | |
| 10 CSR 10-2.260 | Air Conservation Commission | | 43 MoReg 1266 | 44 MoReg 123 | |
| 10 CSR 10-2.300 | Air Conservation Commission | | 43 MoReg 1270 | 44 MoReg 127 | |
| 10 CSR 10-2.320 | Air Conservation Commission | | 43 MoReg 1016 | 43 MoReg 3609 | |
| 10 CSR 10-2.340 | Air Conservation Commission | | 43 MoReg 1017 | 43 MoReg 3610 | |
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| 10 CSR 10-5.330 | Air Conservation Commission | | 43 MoReg 2055 | This Issue | |
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| 12 CSR 10-2.010 | Director of Revenue | | 43 MoReg 3263 | | |
| 12 CSR 10-3.017 | Director of Revenue<br>*(Changed to 12 CSR 10-103.017)* | | 43 MoReg 3266 | | |
| 12 CSR 10-3.858 | Director of Revenue<br>*(Changed to 12 CSR 10-110.858)* | | 43 MoReg 3268 | | |
| 12 CSR 10-3.876 | Director of Revenue<br>*(Changed to 12 CSR 10-103.876)* | | 43 MoReg 3266 | | |
| 12 CSR 10-4.320 | Director of Revenue<br>*(Changed to 12 CSR 10-113.320)* | | 43 MoReg 3268 | | |
| 12 CSR 10-10.120 | Director of Revenue | | 43 MoReg 3268 | | |
| 12 CSR 10-23.100 | Director of Revenue | | 43 MoReg 3489 | | |
| 12 CSR 10-23.260 | Director of Revenue | | 43 MoReg 3490 | | |
| 12 CSR 10-23.280 | Director of Revenue | | 43 MoReg 3491 | | |
| 12 CSR 10-23.340 | Director of Revenue | | 43 MoReg 3491 | | |
| 12 CSR 10-23.345 | Director of Revenue | | 43 MoReg 3492 | | |
| 12 CSR 10-23.350 | Director of Revenue | | 43 MoReg 3492 | | |
| 12 CSR 10-23.370 | Director of Revenue | | 43 MoReg 3494 | | |
| 12 CSR 10-23.405 | Director of Revenue | | 43 MoReg 3494 | | |
| 12 CSR 10-23.424 | Director of Revenue | | 43 MoReg 3495 | | |
| 12 CSR 10-24.448 | Director of Revenue | | 43 MoReg 2541 | 44 MoReg 222 | |
| 12 CSR 10-24.470 | Director of Revenue | | 43 MoReg 2645R | 44 MoReg 223R | |
| 12 CSR 10-26.080 | Director of Revenue | | 43 MoReg 3495 | | |
| 12 CSR 10-26.180 | Director of Revenue | | 43 MoReg 3496 | | |
| 12 CSR 10-26.190 | Director of Revenue | | 43 MoReg 3496 | | |
| 12 CSR 10-41.010 | Director of Revenue | 43 MoReg 3347 | 43 MoReg 3497 | | |
| 12 CSR 10-101.500 | Director of Revenue | | 43 MoReg 3269 | | |
| 12 CSR 10-103.017 | Director of Revenue<br>*(Changed from 12 CSR 10-3.017)* | | 43 MoReg 3266 | | |
| 12 CSR 10-103.395 | Director of Revenue | | 43 MoReg 3270 | | |
| 12 CSR 10-103.700 | Director of Revenue | | 43 MoReg 3270 | | |
| 12 CSR 10-103.876 | Director of Revenue<br>*(Changed from 12 CSR 10-3.876)* | | 43 MoReg 3266 | | |
| 12 CSR 10-110.858 | Director of Revenue<br>*(Changed from 12 CSR 10-3.858)* | | 43 MoReg 3268 | | |
| 12 CSR 10-113.320 | Director of Revenue<br>*(Changed from 12 CSR 10-4.320)* | | 43 MoReg 3268 | | |
| 12 CSR 40-10.040 | State Lottery | | 44 MoReg 274 | | |
| 12 CSR 40-40.280 | State Lottery | | 44 MoReg 275 | | |
| 12 CSR 40-50.060 | State Lottery | | 44 MoReg 275 | | |
| 12 CSR 40-70.040 | State Lottery | | 44 MoReg 275 | | |
| | **DEPARTMENT OF SOCIAL SERVICES** | | | | |
| 13 CSR | Department of Social Services | | | | 42 MoReg 990 |
| 13 CSR 5-2.010 | Office of the Director<br>*(Changed from 13 CSR 45-2.010)* | | 43 MoReg 2654 | | |
| 13 CSR 10-3.010 | Division of Finance and Administrative Services<br>*(Changed from 13 CSR 35-100.010)* | | 43 MoReg 2544 | This Issue | |
| 13 CSR 10-3.020 | Division of Finance and Administrative Services<br>*(Changed from 13 CSR 35-100.020)* | | 43 MoReg 2546 | This Issue | |
| 13 CSR 10-3.030 | Division of Finance and Administrative Services<br>*(Changed from 13 CSR 35-100.030)* | | 43 MoReg 2549 | This Issue | |
| 13 CSR 10-3.040 | Division of Finance and Administrative Services<br>*(Changed from 13 CSR 40-79.010)* | | 43 MoReg 2553 | This Issue | |
| 13 CSR 10-3.050 | Division of Finance and Administrative Services | | 43 MoReg 2543 | This Issue | |
| 13 CSR 10-4.010 | Division of Finance and Administrative Services | 43 MoReg 2455 | 43 MoReg 2462 | 44 MoReg 439 | |
| 13 CSR 15-19.010 | Division of Aging | | 43 MoReg 2853R | | |
| 13 CSR 30-2.010 | Child Support Enforcement<br>*(Changed to 13 CSR 40-108.040)* | | 43 MoReg 2645 | | |
| 13 CSR 30-4.020 | Child Support Enforcement<br>*(Changed to 13 CSR 40-104.010)* | | 43 MoReg 2648 | | |
| 13 CSR 30-5.010 | Child Support Enforcement<br>*(Changed to 13 CSR 40-102.010)* | | 43 MoReg 2853 | | |
| 13 CSR 30-5.020 | Child Support Enforcement<br>*(Changed to 13 CSR 40-106.010)* | | 43 MoReg 3072 | | |
| 13 CSR 30-6.010 | Child Support Enforcement<br>*(Changed to 13 CSR 40-104.020)* | | 43 MoReg 3074 | | |
| 13 CSR 30-7.010 | Child Support Enforcement<br>*(Changed to 13 CSR 40-100.020)* | | 43 MoReg 3075 | | |
| 13 CSR 30-8.010 | Child Support Enforcement<br>*(Changed to 13 CSR 40-100.030)* | | 43 MoReg 2855 | | |
| 13 CSR 30-9.010 | Child Support Enforcement<br>*(Changed to 13 CSR 40-108.030)* | | 43 MoReg 2650 | | |

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| 13 CSR 30-10.010 | Child Support Enforcement<br>*(Changed to 13 CSR 40-110.040)* | | 43 MoReg 2651 | | |
| 13 CSR 35-31.015 | Children's Division | | 43 MoReg 2652 | | |
| 13 CSR 35-34.080 | Children's Division | | 43 MoReg 3502 | | |
| 13 CSR 35-35.050 | Children's Division<br>*(Changed from 13 CSR 40-30.010)* | | 43 MoReg 2654 | | |
| 13 CSR 35-60.030 | Children's Division | | 43 MoReg 3081 | | |
| 13 CSR 35-73.010 | Children's Division<br>*(Changed from 13 CSR 40-73.010)* | | 43 MoReg 2979 | | |
| 13 CSR 35-73.012 | Children's Division<br>*(Changed from 13 CSR 40-73.012)* | | 43 MoReg 2857 | | |
| 13 CSR 35-73.030 | Children's Division<br>*(Changed from 13 CSR 40-73.030)* | | 43 MoReg 2858 | | |
| 13 CSR 35-73.035 | Children's Division<br>*(Changed from 13 CSR 40-73.035)* | | 43 MoReg 2979 | | |
| 13 CSR 35-73.040 | Children's Division<br>*(Changed from 13 CSR 40-73.040)* | | 43 MoReg 2980 | | |
| 13 CSR 35-73.050 | Children's Division<br>*(Changed from 13 CSR 40-73.050)* | | 43 MoReg 2980 | | |
| 13 CSR 35-73.060 | Children's Division<br>*(Changed from 13 CSR 40-73.060)* | | 43 MoReg 2981 | | |
| 13 CSR 35-73.070 | Children's Division<br>*(Changed from 13 CSR 40-73.070)* | | 43 MoReg 2981 | | |
| 13 CSR 35-73.075 | Children's Division<br>*(Changed from 13 CSR 40-73.075)* | | 43 MoReg 2981 | | |
| 13 CSR 35-73.080 | Children's Division<br>*(Changed from 13 CSR 40-73.080)* | | 43 MoReg 2982 | | |
| 13 CSR 35-100.010 | Children's Division<br>*(Changed to 13 CSR 10-3.010)* | | 43 MoReg 2544 | This Issue | |
| 13 CSR 35-100.020 | Children's Division<br>*(Changed to 13 CSR 10-3.020)* | | 43 MoReg 2546 | This Issue | |
| 13 CSR 35-100.030 | Children's Division<br>*(Changed to 13 CSR 10-3.030)* | | 43 MoReg 2549 | This Issue | |
| 13 CSR 40-2.010 | Family Support Division | | 43 MoReg 3082 | | |
| 13 CSR 40-2.020 | Family Support Division | | 43 MoReg 3082 | | |
| 13 CSR 40-2.040 | Family Support Division | | 43 MoReg 3082 | | |
| 13 CSR 40-2.050 | Family Support Division | | 43 MoReg 2653 | | |
| 13 CSR 40-2.090 | Family Support Division | | 43 MoReg 2551R | This IssueR | |
| 13 CSR 40-2.100 | Family Support Division | | 43 MoReg 2653 | | |
| 13 CSR 40-2.120 | Family Support Division | | 43 MoReg 3083 | | |
| 13 CSR 40-2.150 | Family Support Division | | 43 MoReg 2551 | This Issue | |
| 13 CSR 40-2.200 | Family Support Division | | 43 MoReg 3084 | | |
| 13 CSR 40-2.260 | Family Support Division | | 43 MoReg 3085 | | |
| 13 CSR 40-2.375 | Family Support Division | | 43 MoReg 2552R | This IssueR | |
| 13 CSR 40-2.395 | Family Support Division | | 43 MoReg 3086 | | |
| 13 CSR 40-3.020 | Family Support Division<br>*(Changed to 13 CSR 40-108.020)* | | 43 MoReg 2653 | | |
| 13 CSR 40-7.010 | Family Support Division | | 43 MoReg 3087 | | |
| 13 CSR 40-7.020 | Family Support Division | | 43 MoReg 2654 | | |
| 13 CSR 40-7.070 | Family Support Division | | 43 MoReg 2552 | This Issue | |
| 13 CSR 40-30.010 | Family Support Division<br>*(Changed to 13 CSR 35-35.050)* | | 43 MoReg 2654 | | |
| 13 CSR 40-32.020 | Family Support Division | | 43 MoReg 2856R | | |
| 13 CSR 40-34.012 | Family Support Division | | 43 MoReg 1917R | 43 MoReg 3866R | |
| 13 CSR 40-34.060 | Family Support Division | | 43 MoReg 3089R | | |
| 13 CSR 40-36.001 | Family Support Division | | 43 MoReg 2857R | | |
| 13 CSR 40-50.010 | Family Support Division | | 43 MoReg 3089R | | |
| 13 CSR 40-73.010 | Family Support Division<br>*(Changed to 13 CSR 35-73.010)* | | 43 MoReg 2979 | | |
| 13 CSR 40-73.012 | Family Support Division<br>*(Changed to 13 CSR 35-73.012)* | | 43 MoReg 2857 | | |
| 13 CSR 40-73.015 | Family Support Division | | 43 MoReg 2857R | | |
| 13 CSR 40-73.018 | Family Support Division | | 43 MoReg 2858R | | |
| 13 CSR 40-73.030 | Family Support Division<br>*(Changed to 13 CSR 35-73.030)* | | 43 MoReg 2858 | | |
| 13 CSR 40-73.035 | Family Support Division<br>*(Changed to 13 CSR 35-73.035)* | | 43 MoReg 2979 | | |
| 13 CSR 40-73.040 | Family Support Division<br>*(Changed to 13 CSR 35-73.040)* | | 43 MoReg 2980 | | |
| 13 CSR 40-73.050 | Family Support Division<br>*(Changed to 13 CSR 35-73.050)* | | 43 MoReg 2980 | | |
| 13 CSR 40-73.060 | Family Support Division<br>*(Changed to 13 CSR 35-73.060)* | | 43 MoReg 2981 | | |
| 13 CSR 40-73.070 | Family Support Division<br>*(Changed to 13 CSR 35-73.070)* | | 43 MoReg 2981 | | |
| 13 CSR 40-73.075 | Family Support Division<br>*(Changed to 13 CSR 35-73.075)* | | 43 MoReg 2981 | | |
| 13 CSR 40-73.080 | Family Support Division<br>*(Changed to 13 CSR 35-73.080)* | | 43 MoReg 2982 | | |
| 13 CSR 40-79.010 | Family Support Division<br>*(Changed to 13 CSR 10-3.040)* | | 43 MoReg 2553 | This Issue | |
| 13 CSR 40-80.010 | Family Support Division | | 43 MoReg 2555R | This IssueR | |
| 13 CSR 40-91.010 | Family Support Division | | 43 MoReg 3089 | | |
| 13 CSR 40-91.030 | Family Support Division | | 43 MoReg 3092 | | |
| 13 CSR 40-100.020 | Family Support Division<br>*(Changed from 13 CSR 30-7.010)* | | 43 MoReg 3075 | | |
| 13 CSR 40-100.030 | Family Support Division<br>*(Changed from 13 CSR 30-8.010)* | | 43 MoReg 2855 | | |
| 13 CSR 40-102.010 | Family Support Division<br>*(Changed from 13 CSR 30-5.010)* | | 43 MoReg 2853 | | |

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| 13 CSR 40-104.010 | Family Support Division *(Changed from 13 CSR 30-4.020)* | | 43 MoReg 2648 | | |
| 13 CSR 40-104.020 | Family Support Division *(Changed from 13 CSR 30-6.010)* | | 43 MoReg 3074 | | |
| 13 CSR 40-106.010 | Family Support Division *(Changed from 13 CSR 30-5.020)* | | 43 MoReg 3072 | | |
| 13 CSR 40-108.020 | Family Support Division *(Changed from 13 CSR 40-3.020)* | | 43 MoReg 2653 | | |
| 13 CSR 40-108.030 | Family Support Division *(Changed from 13 CSR 30-9.010)* | | 43 MoReg 2650 | | |
| 13 CSR 40-108.040 | Family Support Division *(Changed from 13 CSR 30-2.010)* | | 43 MoReg 2645 | | |
| 13 CSR 40-110.040 | Family Support Division *(Changed from 13 CSR 30-10.010)* | | 43 MoReg 2651 | | |
| 13 CSR 45-2.010 | Division of Legal Services *(Changed to 13 CSR 5-2.010)* | | 43 MoReg 2654 | | |
| 13 CSR 65-3.010 | Missouri Medicaid Audit and Compliance | | 43 MoReg 2555 | 44 MoReg 440 | |
| 13 CSR 65-3.060 | Missouri Medicaid Audit and Compliance | | 43 MoReg 2858 | | |
| 13 CSR 70-2.100 | MO HealthNet Division | | 43 MoReg 2859 | | |
| 13 CSR 70-3.100 | MO HealthNet Division | | 43 MoReg 3092 | | |
| 13 CSR 70-3.130 | MO HealthNet Division | | 43 MoReg 2860R | | |
| 13 CSR 70-3.190 | MO HealthNet Division | | 43 MoReg 1917R | 43 MoReg 3866R | |
| 13 CSR 70-3.230 | MO HealthNet Division | | 43 MoReg 2860 | | |
| 13 CSR 70-3.270 | MO HealthNet Division | | 43 MoReg 2557 | This IssueW | |
| 13 CSR 70-3.280 | MO HealthNet Division | | This Issue | | |
| 13 CSR 70-3.290 | MO HealthNet Division | | This Issue | | |
| 13 CSR 70-3.300 | MO HealthNet Division | | 43 MoReg 2658 | | |
| 13 CSR 70-4.051 | MO HealthNet Division | | 43 MoReg 3093 | | |
| 13 CSR 70-4.070 | MO HealthNet Division | | 43 MoReg 1918R | 43 MoReg 3866R | |
| 13 CSR 70-10.016 | MO HealthNet Division | This Issue | 43 MoReg 3094 | | |
| 13 CSR 70-10.070 | MO HealthNet Division | | 43 MoReg 2866 | | |
| 13 CSR 70-10.120 | MO HealthNet Division | | 43 MoReg 2661 | | |
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| 13 CSR 70-15.010 | MO HealthNet Division | 43 MoReg 1991 | 43 MoReg 2311 | 43 MoReg 3646 | |
| 13 CSR 70-15.110 | MO HealthNet Division | 43 MoReg 1994 | 43 MoReg 2315 | 43 MoReg 3646 | |
| 13 CSR 70-20.030 | MO HealthNet Division | | 43 MoReg 2868 | | |
| 13 CSR 70-20.031 | MO HealthNet Division | | 43 MoReg 3099 | | |
| 13 CSR 70-20.032 | MO HealthNet Division | | 43 MoReg 1918R | 43 MoReg 3866R | |
| 13 CSR 70-20.034 | MO HealthNet Division | | 43 MoReg 3099R | | |
| 13 CSR 70-20.040 | MO HealthNet Division | | 43 MoReg 1918R | 43 MoReg 3866R | |
| 13 CSR 70-20.060 | MO HealthNet Division | | 43 MoReg 2564 | This IssueW | |
| 13 CSR 70-20.070 | MO HealthNet Division | | 43 MoReg 2566 | This Issue | |
| 13 CSR 70-20.340 | MO HealthNet Division | | 43 MoReg 3099 | | |
| 13 CSR 70-26.010 | MO HealthNet Division | | 43 MoReg 3101 | | |
| 13 CSR 70-30.010 | MO HealthNet Division | | 43 MoReg 3103 | | |
| 13 CSR 70-94.010 | MO HealthNet Division | | 43 MoReg 3502 | | |
| 13 CSR 70-98.015 | MO HealthNet Division | | 43 MoReg 3103 | | |
| 13 CSR 70-98.020 | MO HealthNet Division | | 43 MoReg 3105 | | |
| 13 CSR 110-2.060 | Division of Youth Services | | 43 MoReg 2662 | | |
| 13 CSR 110-2.120 | Division of Youth Services | | 43 MoReg 2663 | | |
| 13 CSR 110-3.010 | Division of Youth Services | | 43 MoReg 3106 | | |
| 13 CSR 110-3.015 | Division of Youth Services | | 43 MoReg 2868R | | |
| 13 CSR 110-3.020 | Division of Youth Services | | 43 MoReg 2869R | | |
| 13 CSR 110-3.030 | Division of Youth Services | | 43 MoReg 3505 | | |
| 13 CSR 110-3.040 | Division of Youth Services | | 43 MoReg 3106 | | |
| 13 CSR 110-3.050 | Division of Youth Services | | 43 MoReg 3271R | | |
| 13 CSR 110-3.060 | Division of Youth Services | | 43 MoReg 3107 | | |
| 13 CSR 110-7.010 | Division of Youth Services | | 44 MoReg 97 | | |
| 13 CSR 110-8.010 | Division of Youth Services | | This Issue | | |
| 13 CSR 110-8.020 | Division of Youth Services | | This Issue | | |
| | **DEPARTMENT OF CORRECTIONS** | | | | |
| 14 CSR | Department of Corrections | | | | 42 MoReg 990 |
| | **ELECTED OFFICIALS** | | | | |
| 15 CSR | Elected Officials | | | | 43 MoReg 1498 |
| 15 CSR 30-70.010 | Secretary of State | 43 MoReg 2765 | 43 MoReg 2869 | 44 MoReg 441 | |
| 15 CSR 30-70.020 | Secretary of State | 43 MoReg 2766 | 43 MoReg 2870 | 44 MoReg 441 | |
| 15 CSR 30-70.030 | Secretary of State | 43 MoReg 2767 | 43 MoReg 2870 | 44 MoReg 441 | |
| 15 CSR 30-70.040 | Secretary of State | 43 MoReg 2768 | 43 MoReg 2871 | 44 MoReg 441 | |
| 15 CSR 30-70.050 | Secretary of State | 43 MoReg 2768 | 43 MoReg 2872 | 44 MoReg 441 | |
| 15 CSR 30-70.060 | Secretary of State | 43 MoReg 2769 | 43 MoReg 2872 | 44 MoReg 441 | |
| 15 CSR 30-70.070 | Secretary of State | 43 MoReg 2770 | 43 MoReg 2872 | 44 MoReg 442 | |
| 15 CSR 30-70.080 | Secretary of State | 43 MoReg 2770 | 43 MoReg 2873 | 44 MoReg 442 | |
| 15 CSR 30-70.090 | Secretary of State | 43 MoReg 2771 | 43 MoReg 2873 | 44 MoReg 442 | |
| 15 CSR 30-130.010 | Secretary of State | 44 MoReg 22 | 44 MoReg 99 | | |
| 15 CSR 30-130.020 | Secretary of State | 44 MoReg 22 | 44 MoReg 99 | | |
| 15 CSR 30-130.030 | Secretary of State | 44 MoReg 23 | 44 MoReg 100 | | |
| 15 CSR 30-130.040 | Secretary of State | 44 MoReg 23 | 44 MoReg 102 | | |
| 15 CSR 30-130.050 | Secretary of State | 44 MoReg 24 | 44 MoReg 102 | | |
| 15 CSR 30-130.060 | Secretary of State | 44 MoReg 24 | 44 MoReg 103 | | |
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| 15 CSR 30-130.090 | Secretary of State | 44 MoReg 26 | 44 MoReg 104 | | |
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| | **RETIREMENT SYSTEMS** | | | | |
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| 16 CSR 50-2.030 | The County Employees' Retirement Fund | | 42 MoReg 1592 | 43 MoReg 293 | |

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| | **BOARD OF POLICE COMMISSIONERS** | | | | |
| 17 CSR | Board of Police Commissioners | | | | 43 MoReg 1498 |
| | **PUBLIC DEFENDER COMMISSION** | | | | |
| 18 CSR | Public Defender Commission | | | | 43 MoReg 1498 |
| | **DEPARTMENT OF HEALTH AND SENIOR SERVICES** | | | | |
| 19 CSR 10-10 | Office of the Director | | | | 42 MoReg 991 |
| 19 CSR 10-10.130 | Office of the Director | 43 MoReg 2967 | 43 MoReg 2982 | This Issue | |
| 19 CSR 10-15.060 | Office of the Director | | 43 MoReg 2465 | 44 MoReg 223 | |
| 19 CSR 20-60.010 | Division of Community and Public Health | This Issue | This Issue | | |
| 19 CSR 30-1.002 | Division of Regulation and Licensure | 43 MoReg 3347 | 43 MoReg 3506 | | |
| 19 CSR 30-1.023 | Division of Regulation and Licensure | 43 MoReg 2970 | 43 MoReg 2990 | | |
| 19 CSR 30-1.064 | Division of Regulation and Licensure | 43 MoReg 2971 | 43 MoReg 2990 | | |
| 19 CSR 30-1.078 | Division of Regulation and Licensure | 43 MoReg 2972 | 43 MoReg 2991 | | |
| 19 CSR 30-95.020 | Division of Regulation and Licensure | 44 MoReg 271 | 44 MoReg 276 | | |
| 19 CSR 60-50 | Missouri Health Facilities Review Committee | | | | 43 MoReg 3651<br>44 MoReg 225<br>44 MoReg 445<br>This Issue |
| 19 CSR 73-2.023 | Missouri Board of Nursing Home Administrators | | 43 MoReg 2874 | | |
| 19 CSR 73-2.050 | Missouri Board of Nursing Home Administrators | | 43 MoReg 2875 | | |
| 19 CSR 73-2.051 | Missouri Board of Nursing Home Administrators | | 43 MoReg 2876 | | |
| 19 CSR 73-2.053 | Missouri Board of Nursing Home Administrators | | 43 MoReg 2876 | | |
| 19 CSR 73-2.060 | Missouri Board of Nursing Home Administrators | | 43 MoReg 2877 | | |
| | **DEPARTMENT OF INSURANCE, FINANCIAL INSTITUTIONS AND PROFESSIONAL REGISTRATION** | | | | |
| 20 CSR | Applied Behavior Analysis Maximum Benefit | | | | 43 MoReg 477 |
| 20 CSR | Caps for Medical Malpractice | | | | 43 MoReg 1376 |
| 20 CSR | Construction Claims Binding Arbitration Cap | | | | 43 MoReg 3869 |
| 20 CSR | Sovereign Immunity Limits | | | | 43 MoReg 3870 |
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| 20 CSR 100-1.070 | Insurer Conduct | | 44 MoReg 278 | | |
| 20 CSR 100-1.200 | Insurer Conduct | | 44 MoReg 278R | | |
| 20 CSR 100-1.300 | Insurer Conduct | | 44 MoReg 279R | | |
| 20 CSR 100-2.100 | Insurer Conduct | | 44 MoReg 279R | | |
| 20 CSR 100-3.100 | Insurer Conduct | | 44 MoReg 279R | | |
| 20 CSR 100-4.010 | Insurer Conduct | | 44 MoReg 279R | | |
| 20 CSR 100-4.020 | Insurer Conduct | | 44 MoReg 280R | | |
| 20 CSR 100-4.030 | Insurer Conduct | | 44 MoReg 280R | | |
| 20 CSR 100-6.100 | Insurer Conduct | | 43 MoReg 3512 | | |
| 20 CSR 100-7.002 | Insurer Conduct | | 44 MoReg 280 | | |
| 20 CSR 100-7.005 | Insurer Conduct | | 44 MoReg 281 | | |
| 20 CSR 100-7.010 | Insurer Conduct | | 44 MoReg 282R | | |
| 20 CSR 100-8.002 | Insurer Conduct | | 44 MoReg 282 | | |
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| 20 CSR 100-8.010 | Insurer Conduct | | 44 MoReg 285R | | |
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| 20 CSR 200-1.005 | Insurance Solvency and Company Regulation | | 43 MoReg 3523 | | |
| 20 CSR 200-1.010 | Insurance Solvency and Company Regulation | | 43 MoReg 3524R | | |
| 20 CSR 200-1.020 | Insurance Solvency and Company Regulation | | 43 MoReg 3524 | | |
| 20 CSR 200-1.025 | Insurance Solvency and Company Regulation | | 43 MoReg 3526 | | |
| 20 CSR 200-1.039 | Insurance Solvency and Company Regulation | | 43 MoReg 3526R | | |
| 20 CSR 200-1.040 | Insurance Solvency and Company Regulation | | 43 MoReg 3526 | | |
| 20 CSR 200-1.050 | Insurance Solvency and Company Regulation | | 43 MoReg 3527 | | |
| 20 CSR 200-1.070 | Insurance Solvency and Company Regulation | | 43 MoReg 3528 | | |
| 20 CSR 200-1.110 | Insurance Solvency and Company Regulation | | 43 MoReg 3529 | | |
| 20 CSR 200-1.120 | Insurance Solvency and Company Regulation | | 43 MoReg 3530R | | |
| 20 CSR 200-1.150 | Insurance Solvency and Company Regulation | | 43 MoReg 3530R | | |
| 20 CSR 200-2.200 | Insurance Solvency and Company Regulation | | 43 MoReg 3530R | | |
| 20 CSR 200-2.700 | Insurance Solvency and Company Regulation | | 43 MoReg 3531R | | |
| 20 CSR 200-2.800 | Insurance Solvency and Company Regulation | | 43 MoReg 3531 | | |
| 20 CSR 200-3.010 | Insurance Solvency and Company Regulation | | 43 MoReg 3532 | | |
| 20 CSR 200-3.200 | Insurance Solvency and Company Regulation | | 43 MoReg 3532 | | |
| 20 CSR 200-4.010 | Insurance Solvency and Company Regulation | | 43 MoReg 3533 | | |
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| 20 CSR 200-10.300 | Insurance Solvency and Company Regulation | | 44 MoReg 289 | | |
| 20 CSR 200-10.400 | Insurance Solvency and Company Regulation | | 44 MoReg 290 | | |
| 20 CSR 200-10.500 | Insurance Solvency and Company Regulation | | 44 MoReg 290 | | |
| 20 CSR 200-11.120 | Insurance Solvency and Company Regulation | | 44 MoReg 290 | | |
| 20 CSR 200-11.130 | Insurance Solvency and Company Regulation | | 44 MoReg 291 | | |
| 20 CSR 200-11.150 | Insurance Solvency and Company Regulation | | 44 MoReg 292 | | |
| 20 CSR 200-11.300 | Insurance Solvency and Company Regulation | | 44 MoReg 293R | | |
| 20 CSR 200-12.030 | Insurance Solvency and Company Regulation | | 44 MoReg 293 | | |
| 20 CSR 200-13.100 | Insurance Solvency and Company Regulation | | 44 MoReg 294 | | |
| 20 CSR 200-13.200 | Insurance Solvency and Company Regulation | | 44 MoReg 294 | | |
| 20 CSR 200-13.300 | Insurance Solvency and Company Regulation | | 44 MoReg 295R | | |
| 20 CSR 200-14.200 | Insurance Solvency and Company Regulation | | 44 MoReg 295 | | |
| 20 CSR 200-14.300 | Insurance Solvency and Company Regulation | | 44 MoReg 296R | | |
| 20 CSR 200-14.400 | Insurance Solvency and Company Regulation | | 44 MoReg 296R | | |
| 20 CSR 200-17.200 | Insurance Solvency and Company Regulation | | 43 MoReg 3534 | | |
| 20 CSR 200-19.020 | Insurance Solvency and Company Regulation | | 43 MoReg 3534 | | |
| 20 CSR 200-19.050 | Insurance Solvency and Company Regulation | | 43 MoReg 3535 | | |

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| 20 CSR 200-19.060 | Insurance Solvency and Company Regulation | | 44 MoReg 105 | | |
| 20 CSR 200-20.010 | Insurance Solvency and Company Regulation | | 44 MoReg 105 | | |
| 20 CSR 200-20.030 | Insurance Solvency and Company Regulation | | 44 MoReg 106 | | |
| 20 CSR 200-20.050 | Insurance Solvency and Company Regulation | | 44 MoReg 106 | | |
| 20 CSR 400-6.100 | Life, Annuities and Health | | 43 MoReg 3535 | | |
| 20 CSR 400-7.020 | Life, Annuities and Health | | 44 MoReg 107R | | |
| 20 CSR 500-1.200 | Property and Casualty | | 44 MoReg 296 | | |
| 20 CSR 500-1.400 | Property and Casualty | | 44 MoReg 297 | | |
| 20 CSR 500-1.700 | Property and Casualty | | 44 MoReg 297 | | |
| 20 CSR 500-1.900 | Property and Casualty | | 44 MoReg 298R | | |
| 20 CSR 500-2.500 | Property and Casualty | | 44 MoReg 298 | | |
| 20 CSR 500-4.300 | Property and Casualty | | 44 MoReg 299 | | |
| 20 CSR 500-10.100 | Property and Casualty | | 43 MoReg 3536R | | |
| 20 CSR 500-10.200 | Property and Casualty | | 43 MoReg 3536R | | |
| 20 CSR 500-10.300 | Property and Casualty | | 43 MoReg 3536R | | |
| 20 CSR 500-10.400 | Property and Casualty | | 43 MoReg 3537R | | |
| 20 CSR 600-1.020 | Statistical Reporting | | 44 MoReg 299 | | |
| 20 CSR 600-2.100 | Statistical Reporting | | 44 MoReg 300R | | |
| 20 CSR 600-2.110 | Statistical Reporting | | 44 MoReg 300 | | |
| 20 CSR 600-2.120 | Statistical Reporting | | 44 MoReg 301R | | |
| 20 CSR 600-2.200 | Statistical Reporting | | 44 MoReg 301 | | |
| 20 CSR 600-2.300 | Statistical Reporting | | 44 MoReg 303R | | |
| 20 CSR 600-2.400 | Statistical Reporting | | 44 MoReg 303 | | |
| 20 CSR 600-2.500 | Statistical Reporting | | 44 MoReg 304R | | |
| 20 CSR 600-2.510 | Statistical Reporting | | 44 MoReg 304 | | |
| 20 CSR 600-2.600 | Statistical Reporting | | 44 MoReg 304 | | |
| 20 CSR 800-3.010 | Administrative Procedures under the Insurance Laws | | 43 MoReg 3537 | | |
| 20 CSR 800-3.020 | Administrative Procedures under the Insurance Laws | | 43 MoReg 3537 | | |
| 20 CSR 2040-2.011 | Office of Athletics | 43 MoReg 2772 | 43 MoReg 2878 | 44 MoReg 442 | |
| 20 CSR 2040-2.021 | Office of Athletics | 43 MoReg 2772 | 43 MoReg 2883 | 44 MoReg 442 | |
| 20 CSR 2070-3.010 | State Board of Chiropractic Examiners | | 43 MoReg 3538R | | |
| 20 CSR 2070-4.010 | State Board of Chiropractic Examiners | | 43 MoReg 3271R<br>43 MoReg 3271 | | |
| 20 CSR 2085-3.010 | Board of Cosmetology and Barber Examiners | 43 MoReg 3058 | 43 MoReg 3108 | | |
| 20 CSR 2095-1.020 | Committee for Professional Counselors | | 43 MoReg 3111 | | |
| 20 CSR 2110-1.010 | Missouri Dental Board | | 43 MoReg 2886 | 44 MoReg 442 | |
| 20 CSR 2110-1.020 | Missouri Dental Board | | 43 MoReg 2886 | 44 MoReg 443 | |
| 20 CSR 2110-2.075 | Missouri Dental Board | | 43 MoReg 3274 | | |
| 20 CSR 2110-2.131 | Missouri Dental Board | | 43 MoReg 2886 | 44 MoReg 443 | |
| 20 CSR 2110-2.170 | Missouri Dental Board | | 43 MoReg 2887 | 44 MoReg 443 | |
| 20 CSR 2110-2.250 | Missouri Dental Board | 43 MoReg 3759 | 43 MoReg 3811 | | |
| 20 CSR 2110-2.260 | Missouri Dental Board | | This IssueR | | |
| 20 CSR 2110-4.020 | Missouri Dental Board | | 43 MoReg 3277 | | |
| 20 CSR 2117-1.010 | Office of Statewide Electrical Contractors | | 44 MoReg 305 | | |
| 20 CSR 2117-1.020 | Office of Statewide Electrical Contractors | | 44 MoReg 308 | | |
| 20 CSR 2117-1.030 | Office of Statewide Electrical Contractors | | 44 MoReg 311 | | |
| 20 CSR 2117-1.040 | Office of Statewide Electrical Contractors | | 44 MoReg 314 | | |
| 20 CSR 2117-1.050 | Office of Statewide Electrical Contractors | | 44 MoReg 317 | | |
| 20 CSR 2117-1.060 | Office of Statewide Electrical Contractors | | 44 MoReg 320 | | |
| 20 CSR 2117-1.070 | Office of Statewide Electrical Contractors | | 44 MoReg 323 | | |
| 20 CSR 2117-2.010 | Office of Statewide Electrical Contractors | | 44 MoReg 328 | | |
| 20 CSR 2117-2.020 | Office of Statewide Electrical Contractors | | 44 MoReg 333 | | |
| 20 CSR 2117-2.030 | Office of Statewide Electrical Contractors | | 44 MoReg 337 | | |
| 20 CSR 2117-2.040 | Office of Statewide Electrical Contractors | | 44 MoReg 341 | | |
| 20 CSR 2117-2.050 | Office of Statewide Electrical Contractors | | 44 MoReg 345 | | |
| 20 CSR 2117-2.060 | Office of Statewide Electrical Contractors | | 44 MoReg 350 | | |
| 20 CSR 2117-2.070 | Office of Statewide Electrical Contractors | | 44 MoReg 353 | | |
| 20 CSR 2117-2.080 | Office of Statewide Electrical Contractors | | 44 MoReg 356 | | |
| 20 CSR 2117-3.010 | Office of Statewide Electrical Contractors | | 44 MoReg 361 | | |
| 20 CSR 2117-3.020 | Office of Statewide Electrical Contractors | | 44 MoReg 364 | | |
| 20 CSR 2117-3.030 | Office of Statewide Electrical Contractors | | 44 MoReg 367 | | |
| 20 CSR 2117-4.010 | Office of Statewide Electrical Contractors | | 44 MoReg 370 | | |
| 20 CSR 2117-5.010 | Office of Statewide Electrical Contractors | | 44 MoReg 373 | | |
| 20 CSR 2150-3.080 | State Board of Registration for the Healing Arts | 43 MoReg 2459 | 43 MoReg 2469 | 43 MoReg 3646 | |
| 20 CSR 2150-3.170 | State Board of Registration for the Healing Arts | 43 MoReg 2459 | 43 MoReg 2472 | 43 MoReg 3646 | |
| 20 CSR 2150-3.300 | State Board of Registration for the Healing Arts | 43 MoReg 2460 | 43 MoReg 2475 | 43 MoReg 3647 | |
| 20 CSR 2150-5.025 | State Board of Registration for the Healing Arts | 43 MoReg 2773 | 43 MoReg 2890 | 44 MoReg 443 | |
| 20 CSR 2150-5.100 | State Board of Registration for the Healing Arts | 44 MoReg 27T | | | |
| 20 CSR 2200-4.200 | State Board of Nursing | 44 MoReg 27T | | | |
| 20 CSR 2200-7.010 | State Board of Nursing | | 43 MoReg 3278 | | |
| 20 CSR 2210-1.010 | State Board of Optometry | | 43 MoReg 2892 | 44 MoReg 443 | |
| 20 CSR 2210-1.020 | State Board of Optometry | | 43 MoReg 2893 | 44 MoReg 444 | |
| 20 CSR 2210-2.011 | State Board of Optometry | | 43 MoReg 2893 | 44 MoReg 444 | |
| 20 CSR 2210-2.020 | State Board of Optometry | | 43 MoReg 3811 | | |
| 20 CSR 2210-2.030 | State Board of Optometry | | 43 MoReg 2893 | 44 MoReg 444 | |
| 20 CSR 2210-2.060 | State Board of Optometry | | 43 MoReg 2895 | 44 MoReg 444 | |
| 20 CSR 2220-2.200 | State Board of Pharmacy | 43 MoReg 2776 | 43 MoReg 2896 | 44 MoReg 444 | |
| 20 CSR 2220-4.010 | State Board of Pharmacy | 43 MoReg 3058T<br>44 MoReg 28 | 44 MoReg 107 | | |
| 20 CSR 2220-8.010 | State Board of Pharmacy | 44 MoReg 28 | 44 MoReg 113 | | |

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| 20 CSR 2220-8.020 | State Board of Pharmacy | 44 MoReg 29 | 44 MoReg 113 | | |
| 20 CSR 2220-8.030 | State Board of Pharmacy | 44 MoReg 30 | 44 MoReg 115 | | |
| 20 CSR 2220-8.040 | State Board of Pharmacy | 44 MoReg 31 | 44 MoReg 115 | | |
| 20 CSR 2220-8.045 | State Board of Pharmacy | 44 MoReg 33 | 44 MoReg 117 | | |
| 20 CSR 2220-8.050 | State Board of Pharmacy | | 44 MoReg 118 | | |
| 20 CSR 2220-8.060 | State Board of Pharmacy | | 44 MoReg 119 | | |
| 20 CSR 2231-3.010 | Division of Professional Registration | 43 MoReg 3760 | 43 MoReg 3814 | | |
| 20 CSR 2232-1.040 | Missouri State Committee of Interpreters | 43 MoReg 3760 | 43 MoReg 3817 | | |
| 20 CSR 2245-1.010 | Real Estate Appraisers | 43 MoReg 2639 | 43 MoReg 2664 | 44 MoReg 223 | |
| 20 CSR 2245-3.005 | Real Estate Appraisers | 43 MoReg 2640 | 43 MoReg 2664 | 44 MoReg 224 | |
| 20 CSR 2245-3.010 | Real Estate Appraisers | 43 MoReg 2641 | 43 MoReg 2665 | 44 MoReg 224 | |
| 20 CSR 2245-5.020 | Real Estate Appraisers | | 44 MoReg 119 | | |
| 20 CSR 2245-6.040 | Real Estate Appraisers | 43 MoReg 2642 | 43 MoReg 2665 | 44 MoReg 224 | |
| 20 CSR 2245-8.010 | Real Estate Appraisers | 43 MoReg 2643 | 43 MoReg 2666 | 44 MoReg 224 | |
| 20 CSR 2245-8.030 | Real Estate Appraisers | 43 MoReg 2643 | 43 MoReg 2666 | 44 MoReg 224 | |
| 20 CSR 2270-1.011 | Missouri Veterinary Medical Board | | 43 MoReg 2570 | 43 MoReg 3867 | |
| 20 CSR 2270-1.031 | Missouri Veterinary Medical Board | | 43 MoReg 2570 | 43 MoReg 3867 | |
| 20 CSR 2270-2.031 | Missouri Veterinary Medical Board | | 43 MoReg 2572 | 43 MoReg 3867 | |
| 20 CSR 2270-2.041 | Missouri Veterinary Medical Board | | 43 MoReg 2572 | 43 MoReg 3867 | |
| 20 CSR 2270-3.020 | Missouri Veterinary Medical Board | | 43 MoReg 2572 | 43 MoReg 3867 | |
| 20 CSR 2270-4.011 | Missouri Veterinary Medical Board | | 43 MoReg 2573 | 43 MoReg 3867 | |
| 20 CSR 2270-4.021 | Missouri Veterinary Medical Board | | 43 MoReg 2573 | 43 MoReg 3868 | |
| 20 CSR 2270-4.031 | Missouri Veterinary Medical Board | | 43 MoReg 2574 | 43 MoReg 3868 | |
| 20 CSR 2270-4.041 | Missouri Veterinary Medical Board | | 43 MoReg 2574 | 43 MoReg 3868 | |
| 20 CSR 2270-4.042 | Missouri Veterinary Medical Board | | 43 MoReg 2575 | 43 MoReg 3868 | |
| 20 CSR 2270-6.011 | Missouri Veterinary Medical Board | | 43 MoReg 2575 | 43 MoReg 3868 | |
| | **MISSOURI CONSOLIDATED HEALTH CARE PLAN** | | | | |
| 22 CSR 10-1.030 | Health Care Plan | 43 MoReg 3354 | 43 MoReg 3539 | | |
| 22 CSR 10-2.010 | Health Care Plan | 43 MoReg 3356 | 43 MoReg 3540 | | |
| 22 CSR 10-2.020 | Health Care Plan | 43 MoReg 3357 | 43 MoReg 3541 | | |
| 22 CSR 10-2.030 | Health Care Plan | 43 MoReg 3362 | 43 MoReg 3546 | | |
| 22 CSR 10-2.045 | Health Care Plan | 43 MoReg 3365 | 43 MoReg 3549 | | |
| 22 CSR 10-2.046 | Health Care Plan | 43 MoReg 3366 | 43 MoReg 3550 | | |
| 22 CSR 10-2.047 | Health Care Plan | 43 MoReg 3368 | 43 MoReg 3551 | | |
| 22 CSR 10-2.051 | Health Care Plan | 43 MoReg 3370R | 43 MoReg 3553R | | |
| 22 CSR 10-2.052 | Health Care Plan | 43 MoReg 3370R | 43 MoReg 3553R | | |
| 22 CSR 10-2.053 | Health Care Plan | 43 MoReg 3370 | 43 MoReg 3553 | | |
| 22 CSR 10-2.055 | Health Care Plan | 43 MoReg 3372 | 43 MoReg 3555 | | |
| 22 CSR 10-2.060 | Health Care Plan | 43 MoReg 3381R | 43 MoReg 3564R | | |
| 22 CSR 10-2.061 | Health Care Plan | 43 MoReg 3382 | 43 MoReg 3564 | | |
| 22 CSR 10-2.075 | Health Care Plan | 43 MoReg 3383 | 43 MoReg 3566 | | |
| 22 CSR 10-2.080 | Health Care Plan | 43 MoReg 3384 | 43 MoReg 3566 | | |
| 22 CSR 10-2.088 | Health Care Plan | 43 MoReg 3384 | 43 MoReg 3567 | | |
| 22 CSR 10-2.089 | Health Care Plan | 43 MoReg 3385 | 43 MoReg 3567 | | |
| 22 CSR 10-2.090 | Health Care Plan | 43 MoReg 3386 | 43 MoReg 3568 | | |
| 22 CSR 10-2.110 | Health Care Plan | 43 MoReg 3389 | 43 MoReg 3570 | | |
| 22 CSR 10-2.140 | Health Care Plan | 43 MoReg 3390 | 43 MoReg 3572 | | |
| 22 CSR 10-3.010 | Health Care Plan | 43 MoReg 3391 | 43 MoReg 3579 | | |
| 22 CSR 10-3.020 | Health Care Plan | 43 MoReg 3392 | 43 MoReg 3579 | | |
| 22 CSR 10-3.045 | Health Care Plan | 43 MoReg 3395 | 43 MoReg 3582 | | |
| 22 CSR 10-3.053 | Health Care Plan | 43 MoReg 3396R | 43 MoReg 3583R | | |
| 22 CSR 10-3.055 | Health Care Plan | 43 MoReg 3397 | 43 MoReg 3584 | | |
| 22 CSR 10-3.056 | Health Care Plan | 43 MoReg 3397R | 43 MoReg 3584R | | |
| 22 CSR 10-3.057 | Health Care Plan | 43 MoReg 3398 | 43 MoReg 3584 | | |
| 22 CSR 10-3.058 | Health Care Plan | 43 MoReg 3407 | 43 MoReg 3594 | | |
| 22 CSR 10-3.059 | Health Care Plan | 43 MoReg 3409 | 43 MoReg 3595 | | |
| 22 CSR 10-3.060 | Health Care Plan | 43 MoReg 3410R | 43 MoReg 3597R | | |
| 22 CSR 10-3.061 | Health Care Plan | 43 MoReg 3411 | 43 MoReg 3597 | | |
| 22 CSR 10-3.080 | Health Care Plan | 43 MoReg 3412 | 43 MoReg 3598 | | |
| 22 CSR 10-3.090 | Health Care Plan | 43 MoReg 3413 | 43 MoReg 3599 | | |

**4 CSR 80—Economic Development Programs is changing to Division of Economic Development Programs.*

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| **Office of Administration** | | | | |
| **Division of Corrections** | | | | |
| **1 CSR 20-1.010** | General Organization | 43 MoReg 2735 | Aug. 28, 2018 | Feb. 28, 2019 |
| **1 CSR 20-1.020** | Definitions | 43 MoReg 2736 | Aug. 28, 2018 | Feb. 28, 2019 |
| **1 CSR 20-1.040** | Unclassified Service | 43 MoReg 2740 | Aug. 28, 2018 | Feb. 28, 2019 |
| **1 CSR 20-1.045** | Covered Service | 43 MoReg 2741 | Aug. 28, 2018 | Feb. 28, 2019 |
| **1 CSR 20-2.010** | The Classification Plan | 43 MoReg 2742 | Aug. 28, 2018 | Feb. 28, 2019 |
| **1 CSR 20-2.015** | Broad Classification Bands | 43 MoReg 2744 | Aug. 28, 2018 | Feb. 28, 2019 |
| **1 CSR 20-2.020** | The Pay Plan | 43 MoReg 2747 | Aug. 28, 2018 | Feb. 28, 2019 |
| **1 CSR 20-3.010** | Examinations | 43 MoReg 2749 | Aug. 28, 2018 | Feb. 28, 2019 |
| **1 CSR 20-3.020** | Registers | 43 MoReg 2753 | Aug. 28, 2018 | Feb. 28, 2019 |
| **1 CSR 20-3.030** | Certification and Appointment | 43 MoReg 2754 | Aug. 28, 2018 | Feb. 28, 2019 |
| **1 CSR 20-3.040** | Probationary Period | 43 MoReg 2757 | Aug. 28, 2018 | Feb. 28, 2019 |
| **1 CSR 20-3.050** | Service Reports | 43 MoReg 2758 | Aug. 28, 2018 | Feb. 28, 2019 |
| **1 CSR 20-3.070** | Separation, Suspension, and Demotion | 43 MoReg 2759 | Aug. 28, 2018 | Feb. 28, 2019 |
| **1 CSR 20-3.080** | General Provisions and Prohibitions | 43 MoReg 2763 | Aug. 28, 2018 | Feb. 28, 2019 |
| **1 CSR 20-4.010** | Appeals | 43 MoReg 2764 | Aug. 28, 2018 | Feb. 28, 2019 |
| **1 CSR 20-4.020** | Grievance Procedures | 43 MoReg 2764 | Aug. 28, 2018 | Feb. 28, 2019 |
| **Purchasing and Materials Management** | | | | |
| **1 CSR 40-1.050** | Procedures for Solicitation, Receipt of Bids, and Award and Administration of Contracts | 43 MoReg 2967 | Sept. 15, 2018 | March. 13, 2019 |
| **Missouri Ethics Commission** | | | | |
| **1 CSR 50-5.010** | Definitions | 43 MoReg 1121 | Aug. 8, 2018 | Feb. 4, 2019 |
| **1 CSR 50-5.020** | Registration Requirements for Committees Domiciled Outside the State of Missouri and Out-of-State Committees | 43 MoReg 1121 | Aug. 8, 2018 | Feb. 4, 2019 |
| **Department of Economic Development** | | | | |
| **Public Service Commission** | | | | |
| **4 CSR 240-40.033** | Safety Standards - Liquefied Natural Gas Facilities | This Issue | Dec. 29, 2018 | June 26, 2019 |
| **Department of Labor and Industrial Relations** | | | | |
| **Division of Labor Standards** | | | | |
| **8 CSR 30-3.010** | Applicable Wage Rates for Public Works Projects | 44 MoReg 5 | Dec. 01, 2018 | May 29, 2019 |
| **8 CSR 30-3.030** | Apprentices and Entry-Level Workers | 44 MoReg 6 | Dec. 01, 2018 | May 29, 2019 |
| **8 CSR 30-3.040** | Classifications of Construction Work | 44 MoReg 7 | Dec. 01, 2018 | May 29, 2019 |
| **8 CSR 30-3.050** | Posting of Prevailing Wage Rates | 44 MoReg 7 | Dec. 01, 2018 | May 29, 2019 |
| **8 CSR 30-3.060** | Occupational Titles of Work Descriptions | 44 MoReg 8 | Dec. 01, 2018 | May 29, 2019 |
| **Department of Public Safety** | | | | |
| **Division of Alcohol and Tobacco Control** | | | | |
| **11 CSR 70-2.240** | Advertising of Intoxicating Liquor | 43 MoReg 3199 | Oct. 20, 2018 | April 17, 2019 |
| **Department of Revenue** | | | | |
| **Director of Revenue** | | | | |
| **12 CSR 10-41.010** | Annual Adjusted Rate of Interest | 43 MoReg 3347 | Jan. 1, 2019 | June 29, 2019 |
| **Department of Social Services** | | | | |
| **Division of Finance and Administrative Services** | | | | |
| **13 CSR 10-4.010** | Prohibition Against Expenditure of Appropriated Funds for Abortion Facilities | 43 MoReg 2455 | July 15, 2018 | Feb. 28, 2019 |
| **Missouri Medicaid Audit and Compliance** | | | | |
| **13 CSR 65-3.010** | Participant Lock-In Program | March 1, 2019 Issue | Jan. 30, 2019 | Feb 28, 2019 |
| **MO HealthNet Division** | | | | |
| **13 CSR 70-10.016** | Global Per Diem Adjustments to Nursing Facility and HIV Nursing Facility Reimbursement Rates | This Issue | Dec. 31, 2018 | June 28, 2019 |
| **13 CSR 70-15.010** | Inpatient Hospital Services Reimbursement Plan; Outpatient Hospital Services Reimbursement Methodology | 43 MoReg 1991 | July 1, 2018 | Feb. 28, 2019 |
| **13 CSR 70-15.110** | Federal Reimbursement Allowance (FRA) | 43 MoReg 1994 | July 1, 2018 | Feb. 28, 2019 |
| **Elected Officials** | | | | |
| **Secretary of State** | | | | |
| **15 CSR 30-70.010** | Definitions | 43 MoReg 2765 | Sept. 2, 2018 | Feb. 28, 2019 |
| **15 CSR 30-70.020** | Application Assistant Training, Registration, and Renewal | 43 MoReg 2766 | Sept. 2, 2018 | Feb. 28, 2019 |
| **15 CSR 30-70.030** | Program Participant Application and Certification Process | 43 MoReg 2767 | Sept. 2, 2018 | Feb. 28, 2019 |
| **15 CSR 30-70.040** | Cancellation of Program Certification | 43 MoReg 2768 | Sept. 2, 2018 | Feb. 28, 2019 |

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| **15 CSR 30-70.050** | Exercise of Program Participant's Privileges | 43 MoReg 2768 | Sept. 2, 2018 | Feb. 28, 2019 |
| **15 CSR 30-70.060** | Service of Process | 43 MoReg 2769 | Sept. 2, 2018 | Feb. 28, 2019 |
| **15 CSR 30-70.070** | Program Participant Renewal | 43 MoReg 2770 | Sept. 2, 2018 | Feb. 28, 2019 |
| **15 CSR 30-70.080** | Agency Disclosure Request | 43 MoReg 2770 | Sept. 2, 2018 | Feb. 28, 2019 |
| **15 CSR 30-70.090** | Disclosure to Law Enforcement | 43 MoReg 2771 | Sept. 2, 2018 | Feb. 28, 2019 |
| **15 CSR 30-130.010** | Definitions | 44 MoReg 22 | Dec. 10, 2018 | June. 7, 2019 |
| **15 CSR 30-130.020** | Applications, Interim Operating Permits and Forms | 44 MoReg 22 | Dec. 10, 2018 | June. 7, 2019 |
| **15 CSR 30-130.030** | Fees | 44 MoReg 23 | Dec. 10, 2018 | June. 7, 2019 |
| **15 CSR 30-130.040** | Approval of Assurance Organizations | 44 MoReg 23 | Dec. 10, 2018 | June. 7, 2019 |
| **15 CSR 30-130.050** | Use of Assurance Organizations by Applicant | 44 MoReg 24 | Dec. 10, 2018 | June. 7, 2019 |
| **15 CSR 30-130.060** | Proof of Positive Working Capital, Bonds and Letters | 44 MoReg 24 | Dec. 10, 2018 | June. 7, 2019 |
| **15 CSR 30-130.070** | Disciplinary Actions | 44 MoReg 25 | Dec. 10, 2018 | June. 7, 2019 |
| **15 CSR 30-130.080** | Request for Hearing | 44 MoReg 26 | Dec. 10, 2018 | June. 7, 2019 |
| **15 CSR 30-130.090** | Hearings | 44 MoReg 26 | Dec. 10, 2018 | June. 7, 2019 |
| **15 CSR 30-130.100** | Appeals | 44 MoReg 27 | Dec. 10, 2018 | June. 7, 2019 |
| **Department of Health and Senior Services** | | | | |
| **Office of the Director** | | | | |
| **19 CSR 10-10.130** | Missouri Adoptee Rights | 43 MoReg 2967 | Sept. 20, 2018 | March 18, 2019 |
| **19 CSR 10-15.060** | Prohibition on Expenditure of Funds | 43 MoReg 2456 | July 15, 2018 | Feb. 28, 2019 |
| **19 CSR 20-60.010** | Levels of Maternal and Neonatal Care Designations | This Issue | Dec. 30, 2018 | June 27, 2019 |
| **19 CSR 30-1.002** | Schedules of Controlled Substances | 43 MoReg 3347 | Nov. 04, 2018 | May 2, 2019 |
| **19 CSR 30-1.023** | Registration Changes | 43 MoReg 2970 | Sept 27, 2018 | March 25, 2019 |
| **19 CSR 30-1.064** | Partial Filling of Controlled Substance Prescriptions | 43 MoReg 2971 | Sept 27, 2018 | March 25, 2019 |
| **19 CSR 30-1.078** | Disposing of Unwanted Controlled Substances | 43 MoReg 2972 | Sept 27, 2018 | March 25, 2019 |
| **19 CSR 30-95.020** | General Provisions | 44 MoReg 271 | Dec. 24, 2018 | June 21, 2019 |
| **Department of Insurance, Financial Institutions and Professional Registration** | | | | |
| **Office of Athletics** | | | | |
| **20 CSR 2040-2.011** | Licenses | 43 MoReg 2772 | Sept. 7, 2018 | March 5, 2019 |
| **20 CSR 2040-2.021** | Permits | 43 MoReg 2772 | Sept. 7, 2018 | March 5, 2019 |
| **Board of Cosmetology and Barber Examiners** | | | | |
| **20 CSR 2085-3.010** | Fees | 43 MoReg 3058 | Oct. 1, 2018 | March. 29, 2019 |
| **Missouri Dental Board** | | | | |
| **20 CSR 2110-2.250** | Prescribing Opioids | 43 MoReg 3759 | Nov. 17, 2018 | May 15, 2019 |
| **State Board of Registration for the Healing Arts** | | | | |
| **20 CSR 2150-3.080** | Physical Therapists Licensure Fees | 43 MoReg 2459 | July 13, 2018 | Feb. 28, 2019 |
| **20 CSR 2150-3.170** | Physical Therapist Assistant Licensure Fees | 43 MoReg 2459 | July 13, 2018 | Feb. 28, 2019 |
| **20 CSR 2150-3.300** | Physical Therapy Compact Rules | 43 MoReg 2460 | July 13, 2018 | Feb. 28, 2019 |
| **20 CSR 2150-5.025** | Administration of Vaccines Per Protocol | 43 MoReg 2773 | Sept. 30, 2018 | March. 28, 2019 |
| **State Board of Optometry** | | | | |
| **20 CSR 2210-2.070** | Fees | 43 MoReg 1257 | May 21, 2018 | Feb. 28, 2019 |
| **State Board of Pharmacy** | | | | |
| **20 CSR 2220-2.200** | Sterile Compounding | 43 MoReg 2776 | Aug. 30, 2018 | Feb. 28, 2019 |
| **20 CSR 2220-4.010** | General Fees | 44 MoReg 28 | Dec. 8, 2018 | June 5, 2019 |
| **20 CSR 2220-8.010** | Definitions | 44 MoReg 28 | Dec. 8, 2018 | June 5, 2019 |
| **20 CSR 2220-8.020** | Licensing Requirements | 44 MoReg 29 | Dec. 8, 2018 | June 5, 2019 |
| **20 CSR 2220-8.030** | Nonresident Third-Party Logistics Providers/Drug Outsourcer Facilities | 44 MoReg 30 | Dec. 8, 2018 | June 5, 2019 |
| **20 CSR 2220-8.040** | Standards of Operation (Drug Outsourcers) | 44 MoReg 31 | Dec. 8, 2018 | June 5, 2019 |
| **20 CSR 2220-8.045** | Standards of Operation (Third-Party Logistics Providers) | 44 MoReg 33 | Dec. 8, 2018 | June 5, 2019 |
| **Division of Professional Registration** | | | | |
| **20 CSR 2231-3.010** | Fee Waiver for Military Families and Low-Income Individuals | 43 MoReg 3760 | Nov. 17, 2018 | May 15, 2019 |
| **Missouri State Committee of Interpreters** | | | | |
| **20 CSR 2232-1.040** | Fees | 43 MoReg 3760 | Nov. 17, 2018 | May 15, 2019 |
| **Real Estate Appraisers** | | | | |
| **20 CSR 2245-1.010** | General Organization | 43 MoReg 2639 | Aug 17, 2018 | Feb. 28, 2019 |
| **20 CSR 2245-3.005** | Trainee Real Estate Appraiser Registration | 43 MoReg 2640 | Aug 17, 2018 | Feb. 28, 2019 |
| **20 CSR 2245-3.010** | Applications for Certification and Licensure | 43 MoReg 2641 | Aug 17, 2018 | Feb. 28, 2019 |
| **20 CSR 2245-6.040** | Case Study Courses | 43 MoReg 2642 | Aug 17, 2018 | Feb. 28, 2019 |
| **20 CSR 2245-8.010** | Requirements | 43 MoReg 2643 | Aug 17, 2018 | Feb. 28, 2019 |
| **20 CSR 2245-8.030** | Instructor Approval | 43 MoReg 2643 | Aug 17, 2018 | Feb. 28, 2019 |

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| **Missouri Consolidated Health Care Plan** | | | |
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| Executive Orders | Subject Matter | Filed Date | Publication |
|---|---|---|---|
| | **2019** | | |
| **19-03** | Transfers the Division of Workforce Development to the Department of Higher Education | Jan. 17, 2019 | March 1, Issue |
| **19-02** | Transfers the Office of Public Counsel and Public Service Commission to the Department of Insurance, Financial Institutions and Professional Registration | Jan. 17, 2019 | March 1, Issue |
| **19-01** | Transfers the Division of Energy to the Department of Natural Resources | Jan. 17, 2019 | March 1, Issue |
| | **2018** | | |
| **18-12** | Establishes the Missouri 2020 Complete Count Committee | Dec. 18, 2018 | This Issue |
| **18-11** | Closes state offices December 24, 2018. | Nov. 30, 2018 | 43 MoReg 3761 |
| **18-10** | Establishes that each executive branch adhere to the code of conduct regarding gifts form lobbyist | Nov. 20, 2018 | 44 MoReg 36 |
| **18-09** | Closes state offices November 23, 2018. | Nov. 1, 2018 | 43 MoReg 3204 |
| **18-08** | Establishes the Missouri Justice Reinvestment Executive Oversight Council. | Oct. 25, 2018 | 43 MoReg 3472 |
| **Proclamation** | Governor temporarily reduces line items in the budget. | Oct. 31, 2018 | 43 MoReg 3416 |
| **18-07** | Establishes the Bicentennial Commission. | Oct. 12, 2018 | 43 MoReg 3202 |
| **Proclamation** | Calls upon the Senators and Representatives to enact legislation requiring the Department of Elementary and Secondary Education to establish a statewide program to be known as the "STEM Career Awareness Program." | Sept. 4, 2018 | 43 MoReg 2780 |
| **18-06** | Designates those members of the governor's staff who have supervisory authority over each department, division, or agency of state government. | Aug. 21, 2018 | 43 MoReg 2778 |
| **18-05** | Declares a drought alert for 47 Missouri counties and orders the director of the Department of Natural Resources to activate and designate a chairperson for the Drought Assessment Committee | July 18, 2018 | 43 MoReg 2539 |
| **18-04** | Extends the deadline from Section 3d of Executive Order 17-03 through September 30,2018. | June 29, 2018 | 43 MoReg 1996 |
| **18-03** | Reauthorizes and restructures the Homeland Security Advisory Council. | April 25, 2018 | 43 MoReg 1123 |
| **18-02** | Declares a State of Emergency and activates the state militia in response to severe weather that began on Feb. 23. | Feb. 24, 2018 | 43 MoReg 664 |
| **Proclamation** | Governor notifies the General Assembly that he is reducing appropriation lines in the fiscal year 2018 budget. | Feb. 14, 2018 | 43 MoReg 519 |
| **18-01** | Rescinds Executive Order 07-21. | Jan. 4, 2018 | 43 MoReg 251 |

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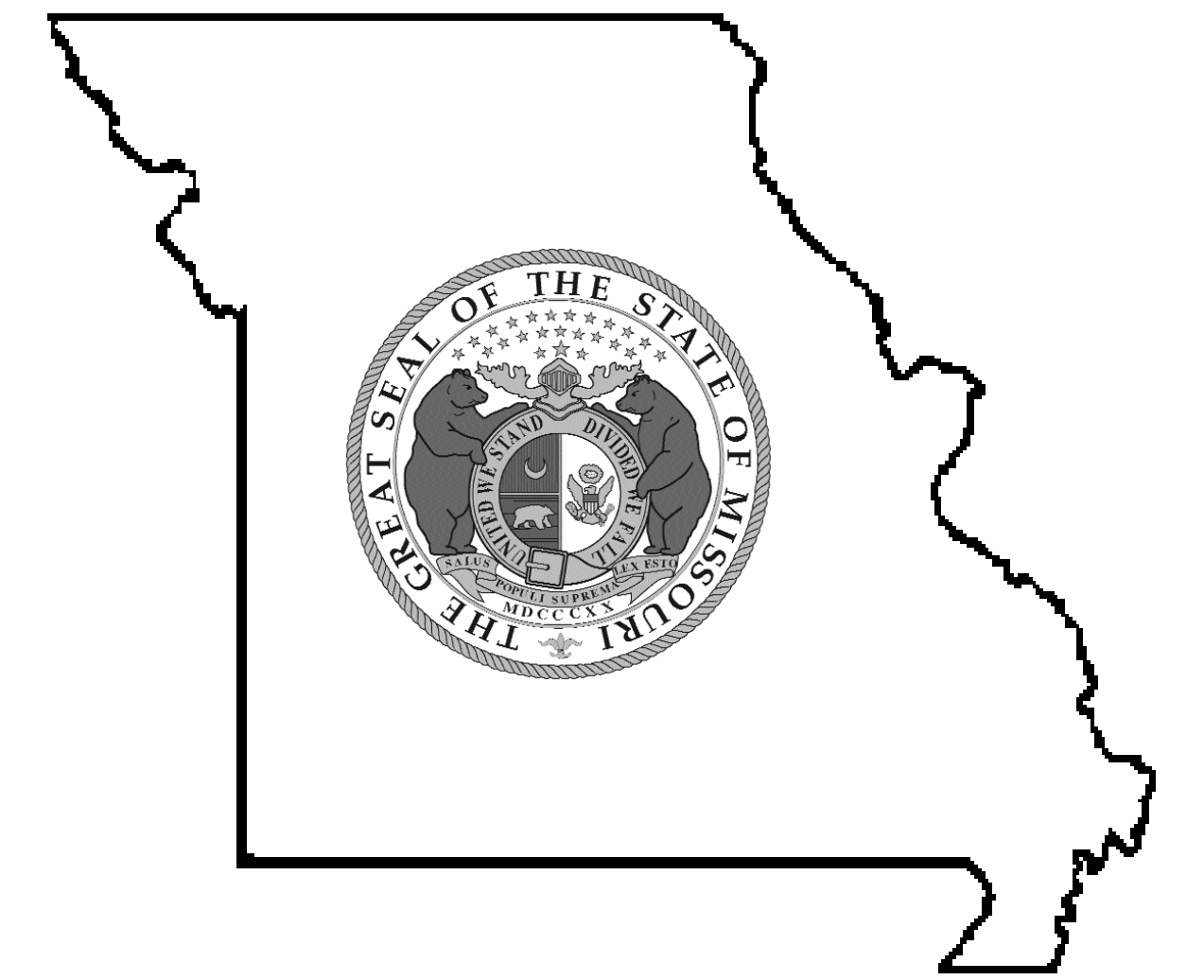

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